HITACHI

Inspire the Next

1.5™

Hitachi UltraVision® 1.5™ UltraThin LCD

HDTV with Audio Video Center

32" Class (31.51" Diagonal)

Anthracite Pearl Crystal Frame

1366 x 768p 120 Hz, PictureMaster™ V

(3) HDMI™ (V.1.3 with Deep Color,CEC) Inputs; (2) Component Inputs

Operating Guide

Model Name

UT32S402

READ THE ENCLOSED INSTRUCTIONS CAREFULLY.
KEEP THIS OPERATING GUIDE FOR FUTURE REFERENCE.
Record the serial number of your monitor for future reference.
SERIAL NO. _____

This serial number is located on the back and right side of the monitor.

If you have a question about this product please call 800-Hitachi for assistance

HIGH-DEFINITION TELEVISION HDTV TUNER

HDMI™ HIGH-DEFINITION MULTIMEDIA INTERFACE

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IMPORTANT SAFETY INSTRUCTIONS

SAFETY POINTS YOU SHOULD KNOW ABOUT YOUR HITACHI LCD MONITOR

Our reputation has been built on the quality, performance, and ease of service of Hitachi LCD Monitors and A/V Centers.

Safety is also foremost in our minds in the design of these units. To help you operate these products properly, this section illustrates safety tips which will be of benefit to you. Please read it carefully and apply the knowledge you obtain from it to the proper operation of your Hitachi LCD Monitor and A/V Center.

Please fill out your warranty card and mail it to Hitachi. This will enable Hitachi to notify you promptly in the improbable event that a safety problem should be discovered in your product model. Model and serial numbers are indicated on back side and right side of the LCD Monitor and underneath the A/V Center.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of a sufficient magnitude to constitute a risk of electric shock to a person.

The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

READ BEFORE OPERATING EQUIPMENT

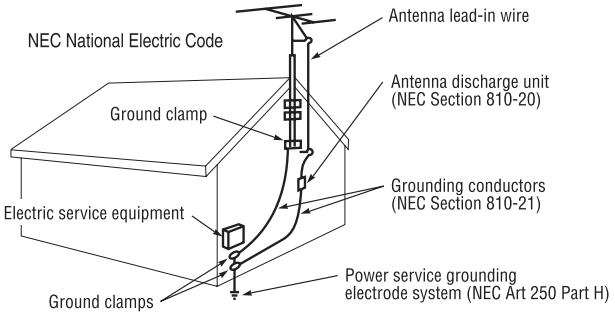
Follow all warnings and instructions marked on this LCD Monitor and A/V Center.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use the attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Monitors, Televisions and A/V Centers are designed to comply with the recommended safety standards for tilt and stability. Do not apply excessive pulling force to the front, or top, of the cabinet which could cause the product to overturn resulting in product damage and/or personal injury.
16. Follow instructions for wall, shelf or ceiling mounting as recommended by the manufacturer.
17. An outdoor antenna should not be located in the vicinity of overhead power lines or other electrical circuits.
18. If an outside antenna is connected to the receiver and the monitor be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electric Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding for the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding connectors, location of antenna discharge unit, connection to grounding electrodes and requirements for the grounding electrode.

NOTE

To the CATV system installer: This reminder is provided to call the CATV system installer’s attention to Article 820-44 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.



IMPORTANT SAFETY INSTRUCTIONS (continued)

Warning

- To reduce the risk of fire or electric shock, do not expose these apparatus to rain or moisture.
- The LCD Monitor and A/V Center should not be exposed to dripping or splashing and objects filled with liquids, such as vases, should not be placed on the Monitor or over the A/V Center.
- The LCD Monitor shall be connected to a mains socket outlet with a protective earthing connection.
- The mains plug is used as the disconnect device and shall remain readily operable.

If problems occur during installation or operation of the product, before calling for technical support or service technicians, please read "TROUBLESHOOTING" (45 ~ 47) to determine the symptoms.

If serious problems occur (such as smoke or an abnormal odor from the unit), turn off the main power, unplug the power cord, and then, contact 800-HITACHI immediately.

Lead/Mercury Notice

Hg

This product contains lead and one or more non-replaceable mercury backlights. Do not put in trash. Recycle or dispose of according to applicable laws. For product recycling and disposal information, contact your local government agency or visit www.eiae.org (in USA) or www.epsc.ca (in Canada). **FOR MORE INFORMATION, CALL 800-HITACHI.**

FEDERAL COMMUNICATIONS COMMISSION NOTICE

This equipments has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Declaration of Conformity

This device complies with part15 of the FCC Rules. Operation is subject to the following two conditions :
(1) This device may not cause harmful interference and (2) This device must accept any interference received, including interference that may cause undesired operation.
For questions regarding this declaration, contact:

Hitachi Home Electronics (America), Inc.
900 Hitachi Way
Chula Vista, CA 91914-3556
Tel. 800-448-2244 (800-HITACHI)
ATTN: Customer Relations

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hitachi Home Electronics (America), Inc. may void the user's authority to operate the equipment.

Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods to maintain compliance with FCC Rules and Regulations.
Any cables that are supplied with the system must be replaced with identical cables in order to assure compliance with FCC rules. Order Hitachi spares as replacement cables.

INDUSTRY CANADA AGENCY REGULATORY INFORMATION

Cable Compatible Television Apparatus- Tèlèvision câblocompatible, Canada.
This class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.
This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Notes on Closed Captions

This Ultra Thin LCD Monitor in combination with the A/V Center will display television closed captioning, (CC or), in accordance with paragraph 15.119 and 15.122 of the FCC rules.

INTRODUCTION

Thank you for purchasing the Hitachi 1.5 LCD Monitor and A/V Center. We hope that you will enjoy the outstanding performance of these products.

This LCD Monitor and the A/V Center have been designed to comply with international standards. However, it could cause personal injury and property damage if improperly handled. In order to prevent potential danger and obtain maximum benefit from your set, please read this operating guide and A/V Center operating guide carefully before operating these products and observe the following instructions when installing, operating, and cleaning the products. To ensure proper operation, please read and follow ALL the instructions, especially the "IMPORTANT SAFETY INSTRUCTIONS" and "SAFETY PRECAUTIONS".
Keep this manual for future reference and record the serial number of your set in the space provided on the front cover page of this manual.

About This Manual

- The information in this manual is subject to change without notice.
- This manual has been produced with the utmost care. If you have any comments or questions regarding this manual, please contact your local dealer or our Customer Service Center.
- Before operating the set, please fully understand the prerequisites such as specifications or constraints for the hardware and software. Hitachi is not responsible and accept no liability for any loss, damage or injury as a result of misuse.
- Reproduction, copying, utilization, modification and/or transmission in whole or in part of this manual are prohibited except by prior written consent.
- All other products and company names used in this manual are trademarks or registered trademarks of their respective owners.

Trademark Credits

- VGA and XGA are trademarks of International Business Machines Corporation.
- VESA is a registered trademark of the Video Electronics Standard Association.
- HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

Even if no special note has been made of company or product trademarks, these trademarks have been fully respected.

Software

It is illegal for you to alter, decompile, disassemble, decrypt, or otherwise reverse-engineer the software installed in this product.

Features

- UltraVision 32" LCD HDTV and Audio Video Center
- 1.5" UltraThin Liquid Crystal Display
- Wide Viewing Angle IPS (In-Plane Switching) Technology
- Flexible Black Insertion for superior clarity
- 120Hz with Motion Interpolation
- High Resolution Progressive Display 1366(H) x 768(V)
- High Efficiency EEFL (External Electrode Fluorescent Lamp) BackLight
- (3) HDMI™ (V.1.3 with Deep Color, CEC) Input
- (1) RGB D-sub15 Input with Audio(Monitor Side)
- Preprogrammed Remote Control
- Easy-to-use Multi-Language On-Screen Display
- High Quality Audio System with 4 Drivers
- High Efficiency Display with Power Saving Features

SAFETY PRECAUTIONS

For your safety, please read the following precautions carefully before using this product. Improper use would cause serious personal injury and/or damage to your property or the product.

Explanation of the Symbols

The following are the symbols used in this manual and affixed to the unit itself. Please fully understand the meanings of the symbols before reading the instructions in this section.

⚠ **WARNING**	Never ignore the instruction. There are risks of serious or fatal injury to the user.
⚠ **CAUTION**	Do not ignore the instruction. There are risks of personal injury and/or property damage.

Other Symbols	
	The triangle with illustration is intended to alert the users that there are risks of fire, explosion, or high temperature if the product is handled improperly. Each illustration within the triangle specifies the contents in detail. (The figure on the left is an example.)
	The circle with diagonal line and illustration indicates a prohibited action (the symbol to the left indicates that dismantling is prohibited).
	This symbol indicates a compulsory action. The contents are clearly indicated in or adjacent to an illustration (the symbol to the left indicates that the power plug should be disconnected from the power outlet).

⚠ WARNING

There is a risk of fire, electric shock, or serious injury.

■ **If serious problems occur, unplug the power cord immediately.**

Serious problems such as:

- Smoke, abnormal odor or noise emitted from the product.
- No picture, no sound or distorted picture on the display.
- Foreign matter (such as water, metals etc.) entered the unit.

Do not continue using the product under these abnormal conditions.

Turn off the main power, unplug the power cord, and contact **800-HITACHI** immediately.

For your safety, never try to repair the product yourself.

Disconnect the plug from the power outlet.

■ **Do not allow liquids or any foreign matter (such as metals or flammable items) to enter the units.**

- If this does occur, turn off the main power, unplug the power cord, and contact **800-HITACHI** immediately.
- Exercise special caution when young children are around the unit.

■ **Do not remove covers, or modify the products.**

- High-voltage components are installed inside of the units. Removing covers can expose you to high -voltage electric shock, and other hazardous conditions.
- Contact **800-HITACHI** to perform servicing such as inspection, adjustment or repair work.

Do not dismantle.

SAFETY PRECAUTIONS (continued)

⚠ WARNING

There is a risk of fire, electric shock or serious injury.

■ **Install the units in a proper location where it does not expose anyone to danger.**

- If you bump against the edges of the unit, you could be injured.

■ **Do not rest weight on top of the units.**

Objects such as

- Liquid containers (vase, fish tank, flowerpot, cosmetics or liquid medicine).
- If water or any liquid spills onto the unit, it may cause short-circuiting and result in fire or electric shock. If this occurs, turn off the main power, unplug the power cord, and contact **800-HITACHI** immediately.
- Do not rest anything heavy on top of the units.
- Do not climb on or hang from the units.
- Do not allow your pets to get on top of the units.

■ **Do not install the units in an unsuitable location.**

- This could cause a malfunction or in extreme cases danger of electric shock. Locations where high moisture is likely, such as bathrooms or shower rooms, close to windows, or outside where rain, snow or other inclement conditions could occur, should be avoided. Please also avoid installing the units in a location where fumes from hot springs could come into contact with it.

■ **Unplug the units in the event of a lightning storm.**

- To reduce the risk of electric shock, do not touch the products when lightning occurs.

Disconnect the plug from the power outlet.

■ **Do not do anything that may damage the power cord.**

- Do not damage, modify, twist, forcibly bend, heat, or pull excessively on the power cord.
- Do not place heavy objects (including the units itself) on top of the power cord.
- If the power cord is damaged, contact **800-HITACHI** for repairs or exchange.

■ **Use only with designated power supply voltage.**

- To prevent the risk of fire and electric shock, operate the products only with the power supply voltage indicated on the unit.

■ **Be careful not to drop or allow any impact to affect the units.**

- Take extra care while moving the units.
- There is no protection glass on the surface of the LCD panel. Therefore do not press the panel surface with your fingers or hands. Also do not hit any objects against the monitor. These actions would damage the LCD cells or the panel surface and could cause failure or personal injury.
- In the event that you drop the units or the cabinet is damaged, turn off the main power, unplug the power cord and contact **800-HITACHI** immediately.
- Continuing use of the products under the above conditions may cause fire or electric shock.

■ **Clean dust or metals from on or around the pins of the power plug regularly.**

- Continuing use of the products under the above conditions may cause fire or electric shock.
- Always unplug the power cord first, then clean the pins using a dry cloth.

■ **Do not place the units on an unstable surface.**

Unstable surfaces such as:

- Tilted surface or shaky shelving, table, stand or trolley.
- If the unit falls down, this could cause personal injury.

SAFETY PRECAUTIONS (continued)

⚠ CAUTION

■ **Do not place or use the units in a dusty location.**
- This could cause a malfunction.

■ **Do not cover or block any ventilation holes on the products.**

The units would overheat and this could cause fire or damage to the products which may shorten its service lifetime.
- Install the products in accordance with the instructions in this manual.
- Do not place the units with the ventilation side downward.
- Do not install the units on carpeting or bedding.
- Do not cover the units with table cloths etc.

■ **Be sure to ground the earth cable correctly(Monitor Only).**
- Especially when you use a power cord adapter, be sure to connect the earth cable to the ground terminal. Incorrect connection could cause fire or electric shock.
- For your safety, always make sure to unplug the power cord before connecting or disconnecting the earth cable.

Connect the earth cable.

■ **Observe the anti-tumble measures described in this manual(Monitor Only).**
- If the unit tumbles over, there is a risk of personal, possibly fatal injury. Also, this would damage the product seriously.

■ **Do not install the units near medical devices.**
- To prevent malfunction of medical devices, do not use the product and medical devices in the same room.

■ **Do not place a CRT-based television near the speakers of the LCD Monitor.**
- This could cause partial discoloration or blurring of the image on the CRT-based television. Please install it away from the speakers of the unit.

■ **Disconnect all of the external connection cables and detach the anti-tumble measures before moving the units.**
- Otherwise fire, electric shock or personal injury may result.

■ **Connect the power plug securely.**
- Improper connection will cause overheating and may result in fire.
- Do not touch the pins of the plug while connecting it to the wall socket. This could cause electric shock.
- If the plug is not suitable for the wall socket, contact your dealer for replacement.

■ **Do not handle the power cord with wet hands.**
- This could result in electric shock.

■ **Do not pull the cord when you unplug the power cord.**
- This may damage the cord and could result in fire or electric shock.
- Grip the plug when disconnecting it.

■ **Unplug the power cord when you do not intend to use the products for long periods of time.**

■ **Handle the batteries properly.**
- Improper or incorrect use of the batteries may cause corrosion or battery leakage, which could cause fire, personal injury or damage to property.
- Use only the types of batteries which are indicated in this manual.
- Do not replace batteries with used ones.
- Install the batteries correctly by observing the polarity (+ and -) indications on the battery compartment.
- Do not dispose of used batteries as domestic waste. Dispose of them in accordance with the local regulations.

SAFETY PRECAUTIONS (continued)

⚠ CAUTION

■ **Do not install the unit in locations where it will be subjected to high temperature.**

This could damage the cabinet or components of the products.

- Do not install near any heat sources such as radiators, heating grilles, stoves, or other apparatus that produce heat.
- Keep the unit out of direct sunlight. Otherwise the resulting increase in temperature of the units may cause a malfunction.

■ **Viewing Advice**

- The lighting of the environment in which the product is used should be appropriate. Too bright/dark environments are not good for your eyes.
- Take time to relax your eyes occasionally.
- When you use the product, view from a distance equal to 3 to 7 times the height of the screen. This is the best viewing distance in order to protect your eyes against eyestrain. Example: (3X)= approx: 1.5m (4'), (7X)= approx: 3.5m (9').
- Adjust the volume to an appropriate level, especially during night time.

■ **Transporting the product**

- When the products needs to be transported due to moving or repair, use the carton box and buffer material that came with the products.
- Always transport the product upright; otherwise this could damage the LCD panel.
- Avoid laying the product down on its face or back.
- Avoid vibrations. If the product "must" be transported laying on its face, be sure to provide soft cushioning material.

■ **Keep radios away from the units while in use.**

The unit is designed to meet the international EMI standards to prevent radio interference. However, the unit may generate noise in the radio.

- If noise is heard on the radio, please try the following actions.
  - Adjust the direction of the radio antenna in order not to receive interference from the units.
  - Keep the radio away from the units.

■ **Infrared communication devices**

- Infrared communication devices such as cordless microphones or cordless headphones may not operate properly around the unit.

  This is because of communication failure. Please note that this is not a malfunction.

■ **When you dispose of the product at the end of its service lifetime, follow the regulations in your residential area.**

- For more information, contact the local authority or the dealer where you purchased the product.

Cleaning and Maintenance

Please make sure to unplug the power cord before cleaning the units.

■ **How to clean the LCD panel of the unit.**

- Wipe the panel with a lint-free and dry cloth in order to prevent damage to the panel surface.
- Do not use a chemical cloth or cleaners. Depending on the ingredients, these may cause discoloration and damage to the panel surface.
- Do not wipe with a rough cloth or rub hard. This may damage the panel surface.
- In case of greasy dirt such as fingerprints, wipe the panel surface with a lint-free cloth moistened with a diluted neutral detergent solution (dilute 1 part of detergent to 100 parts of water), and then wipe with a soft and dry cloth.
- Do not use a spray cleaner. This could cause a malfunction.

■ **How to clean the cabinet of the unit.**

- The following may cause cracking, deformation and peeling of paint.
  - Do not wipe the cabinet with benzene, thinners and other chemical products.
  - Do not spray volatile solutions such as insecticide over the cabinet.
  - Do not leave the cabinet in prolonged contact with plastic or rubber materials.
- Do not use a chemical cloth, cleaner or wax. Depending on the ingredients, these may cause cracking and deformation.
- Use a lint-free cloth (e.g. cloth for cleaning glasses) to clean the cabinet and control panel of the unit. In case of the excessive dirt, wipe with a soft cloth moistened with a diluted neutral detergent solution and then wipe with a soft and dry cloth.
- Never use the following detergents. They could cause cracking, discoloration and scratching.
  - Acidic/alkaline detergents, alcoholic detergents, abrasive cleaners, soap powder, OA cleaner, car wax, glass cleaner, etc.

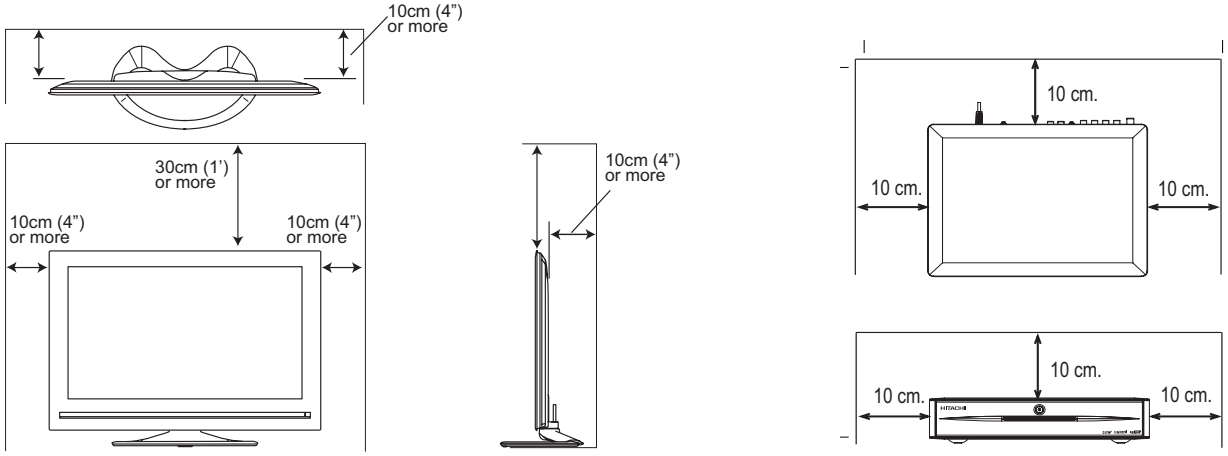
SAFETY PRECAUTIONS (continued)

Main Unit Installation

When installing the main unit, be sure to use the specified mounting units in order to obtain maximum performance and maintain safety.
Hitachi assumes no responsibility nor liability for personal injuries or property damage caused by use of other mounting units or improper installation.

With respect to installation instructions, please read each user manual for the respective mounting units: for Tabletop Setup, Floor Stand Setup, Wall Mounting, and Ceiling Mounting.
If using Wall or Ceiling Mounting units, contact your local dealer and ask for an approved installation specialist to set up the unit. Never attempt to install it yourself. That could cause injury or damage.

Please leave adequate space around the unit in order to avoid increasing the internal temperature. Make sure not to block any ventilation holes.
Do not install the units in a small space such as inside a cabinet, closet or box without adequate ventilation.
For Monitor.-Leave at least 10cm (4") of clearance from each side and 30cm (1') from the top of the Monitor to ceiling.
For A/V center.-Leave at least 10cm (4") of clearance from each side and from the top of the A/V Center to ceiling.

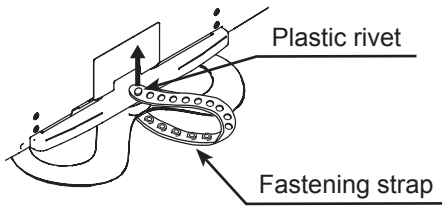


Anti-tumble Measures

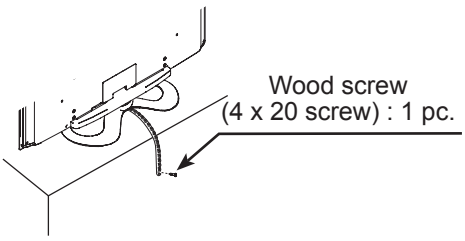
Install in a stable location and take safety precautions against overturning.

Securing to a table

1 **Remove the plastic rivet.**



2 **Fasten the fastening strap to a table using the wood screw provided.**



Securing to ceiling or wall

Use the specified mounting unit to secure the set to a ceiling. For Wall Mounting setup please refer to page (11).
For Floor Stand setup please refer to page (12).

NOTE

- For more information regarding mounting of the unit, please contact **800-HITACHI**.
- Please install the unit in a proper location where it does not expose anyone to the danger of bumping themselves (for example their hands, head or face, etc) against the edges of the unit and causing personal injury.

Child Safety Notice

CHILD SAFETY:

It Makes A Difference How and Where You Use Your Flat Panel Display

Congratulations on your purchase! As you enjoy your new product, please keep these safety tips in mind:

THE ISSUE

- The home theater entertainment experience is a growing trend and larger flat displays are popular purchases. However, flat panel displays are not always supported on the proper stands or installed according to the manufacturer's recommendations.
- Flat Panel displays that are inappropriately situated on dresser, bookcases, shelves, desks, speakers, chest or carts may fall over and cause injury.

HITACHI CARES!

- The consumer electronics industry is commited to making home entertainment enjoyable and safe.

TUNE INTO SAFETY

- One size does NOT fit all. Follow the manufacturer's recommendations for the safe installation and use of your flat panel display.
- Carefully read and understand all enclosed instructions for proper use of this product.
- Don't allow children to climb on or play with furniture and television sets.
- Don't place flat panel displays on furniture that can easily be used as steps, such as a chest of drawers.
- Remember that children can become excited while watching a program, especially on a "larger than life" flat panel display. Care should be taken to place or install the display where it cannot be pushed, pulled over, or knocked down.
- Care should be taken to route all cords and cables connected to the flat panel display so that they cannot be pulled or grabed by curious children.

WALL MOUNTING: IF YOU DECIDE TO WALL MOUNT YOUR FLAT PANEL DISPLAY, ALWAYS:

- Use a mount that has been recommended by the display manufacturer and/or listed by an independent laboratory (such as UL, CSA, ETL).
- Follow all instructions supplied by the display and wall mount manufacturers.
- If you have any doubts about your ability to safely install your flat panel display, contact your retailer about professional installation.
- Make sure that the wall where you are mounting the display is appropiate. Some wall mounts are not designed to be mounted to walls with steel studs or old cinder block construction. If you are unsure, contact a professional installer.
- A minimum of two people are required for installation. Flat panel displays can be heavy.

CEA
Consumer Electronics Association
www.CE.org/safety

SAFETY PRECAUTIONS (continued)

Wall Mount Setup

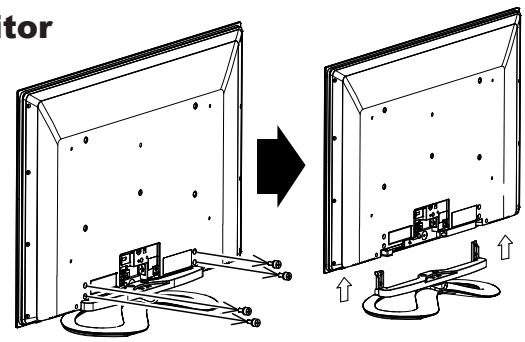
1 Remove the Stand Base from the Monitor

About the Installation

This product is heavy and should be carried by at least 2 people.

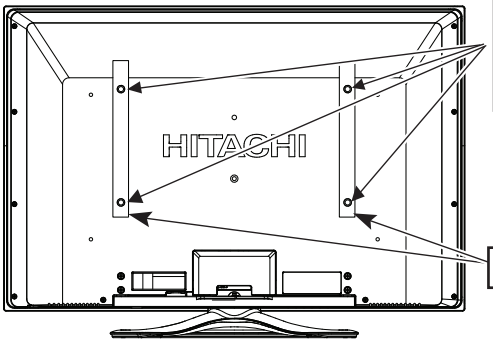
⚠WARNING Please make sure screws are tightened properly. The torque should be 1.8~3.0 N.m (18~30 kgf.cm).

⚠CAUTION Keep the screws. They may be used for the Wall Mount installation.



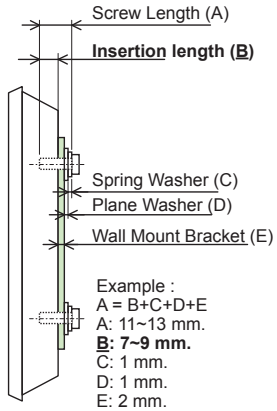
Remove the 4 screws and raise straight up from tabletop stand.

2 Install the Wall Mount Brackets on the Monitor using 4 screws (Screws Specification is shown below).



Screw Mounting Holes (4 places).Don't use the original flat head screws (A) that comes in the monitor, for the Wall Mount Braket. The length is not long enough.

Wall Mount Brackets

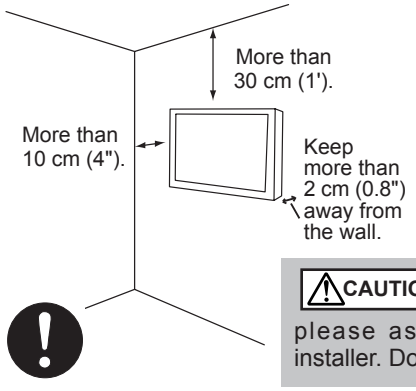


- For Wall Mount assembly; please refer to the Installation Manual of the Wall Mount Unit.
- If the Wall Mount Bracket thickness is 1~3 mm. the original screws removed from the stand base can be used for the Wall Mount installation.

• The screw type :Theread ISO M5 (Metric type, do not use Standard type).

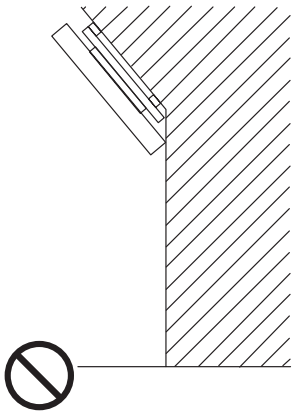
⚠CAUTION Insertion length (**B**) of the screws must be within 7~9 mm. If the length is less than 7 mm, the weight can not be maintained. If the length is more than 9 mm, a space is created between the Wall Mount Bracket and the Monitor. This length is **very important**.

3 Tips to consider for the location of the Monitor.



Do not block the ventilation holes. In addition please keep a cetain distance around and make sure not to obstruct ventilation. Blocking the ventilation holes might cause fire or defect.

⚠CAUTION If you purchased the Wall Mount unit, please ask for a professional installer. Do not install by yourself.



This ultrathin unit features an advanced ventilation system configured for vertical installation. A knowledgeable and experienced professional technician can perform other mounting or installation orientations (e.g., horizontal, tilted) provided that you specifically inform the technician of the unit's specialized ventilation needs. Call 800-HITACHI for additional info and guidance.

⚠CAUTION Although this LCD Monitor can be installed using a variety of third party wall mounting brackets/devices, such third party brackets/devices have not been tested or approved by Hitachi for use or compatibility with this LCD Monitor. Accordingly, Hitachi accepts no responsability or liability for any injuries or property damage resulting from the use of such third party brackets/devices. Hitachi strongly advises that any installation of this LCD Monitor using wall mounting brackets/devices be performed only by a qualified and experienced television installation technician who has completed a thorough evaluation of:

a) the weight-bearing strength and stability of the intended wall mount surface; and

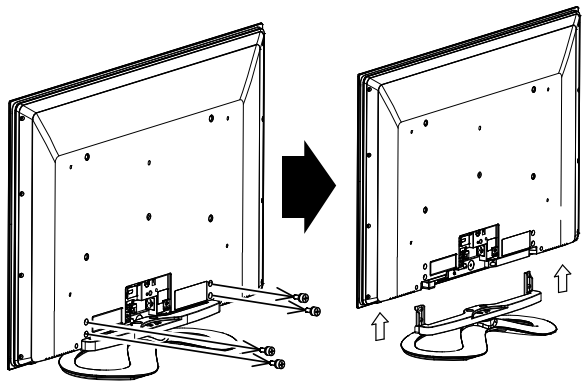
b) the weight-bearing strength and compatibility of the intended wall mount brackets/device.

SAFETY PRECAUTIONS (continued)

Floor Stand Setup

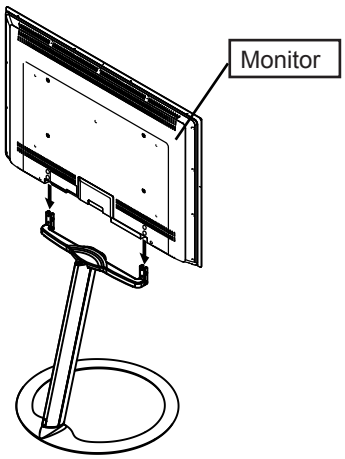
1 Remove the Stand Base from the Monitor

⚠CAUTION Keep the screws. They will be used for the Floor stand installation.



Remove the 4 screws and raise straight up from tabletop stand.

2 Install the Monitor on the Floor Stand



About the Installation

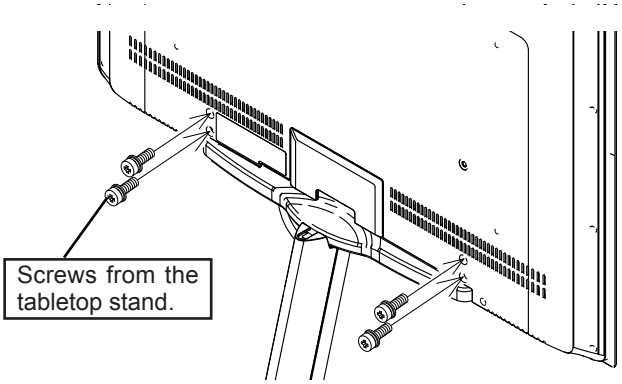
This product is heavy and should be carried by at least 2 people.

• For Stand Assembly; please refer to the Installation Manual of the Floor Stand.

3 Attach the Monitor to the Floor Stand with the 4 screws used with the tabletop stand.

⚠CAUTION Adjust Monitor position left or right to match with screw holes. If the screw holes do not align, the Monitor may be damaged.

⚠WARNING Please make sure screws are tightened properly.

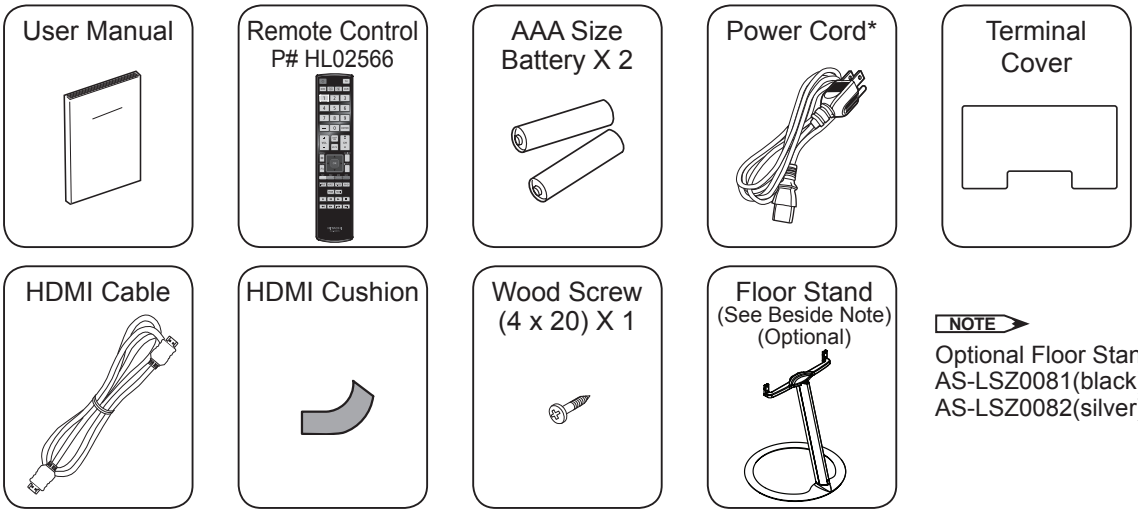


⚠CAUTION UT32S402 LCD UT Monitor is for use with the Hitachi AS-LSZ0081 or AS-LSZ0082 Floor stand only. Use with other floor stands could cause instability and possible injury.

QUICK START GUIDE

For more information on connecting and using your UT Monitor and A/V Center, please be sure to read all instructions in this user manual and A/V Center user manual(included).

1 Supplied Accessories (including option)



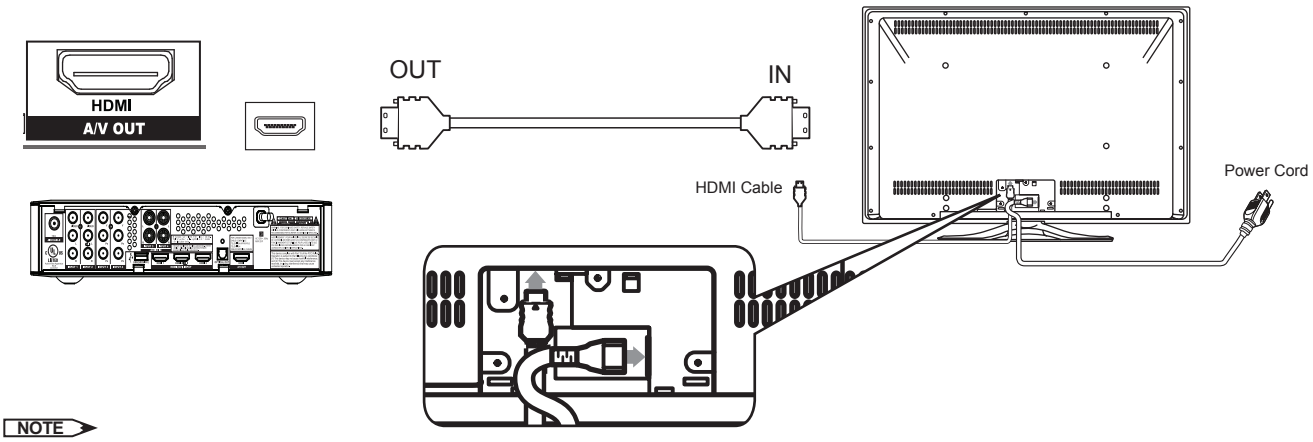
NOTE

Optional Floor Stand
AS-LSZ0081(black)
AS-LSZ0082(silver)

*For some countries, the type of power plug provided may be different from that depicted.

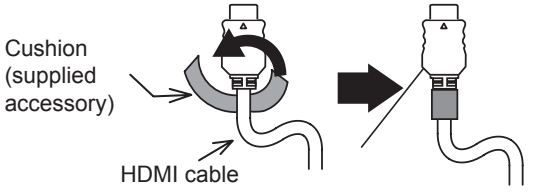
2 Connect your Audio Video Center to the UT Monitor

The **A/V Center HDMI output** terminal (AV Out) is connected to the UT Monitor. Only one cable is used to transmit all video/audio/control signals, thus facilitating an easy connection. Moreover, the digital signals can produce high quality data without any degradation.

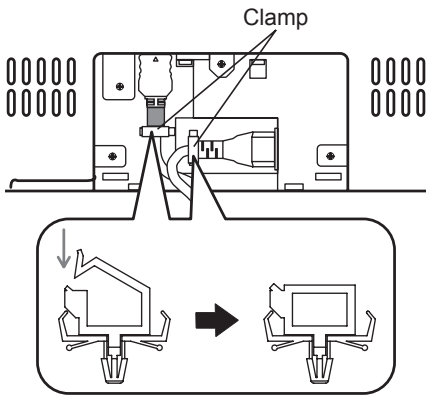


NOTE

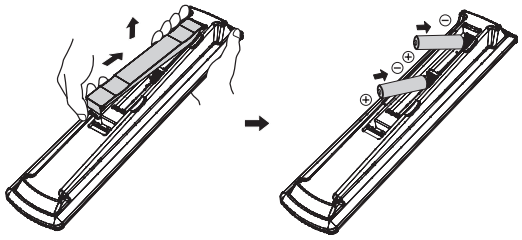
Please be sure to insert completely all HDMI cables when connecting to avoid abnormal picture.
Remember to attached the supplied cushion around the HDMI cable and secure with clamps to avoid disconnection.
Please refer to the A/V Center Operating Guide for more details.



Attach the cushion around the HDMI cable so as not to leave any clearance.



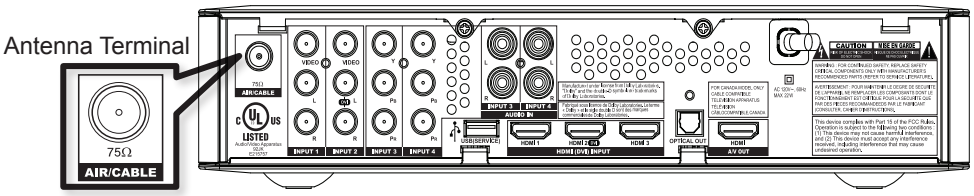
3 Insert the Batteries into the Remote Control... 19



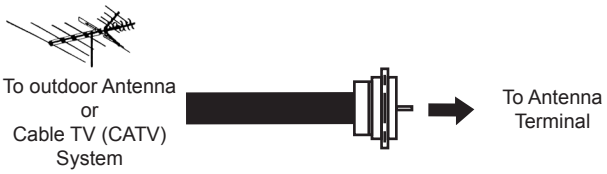
4 Antenna Connection

Unless your A/V Center is connected to a cable TV system or to a centralized antenna system, a good outdoor color TV antenna is recommended for best performance. However, if you are located in an exceptionally good signal area that is free from interference and multiple image ghosts, an indoor antenna may be sufficient.

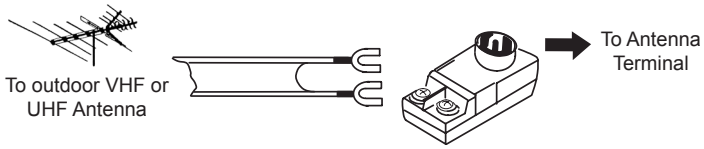
A/V Center Rear View



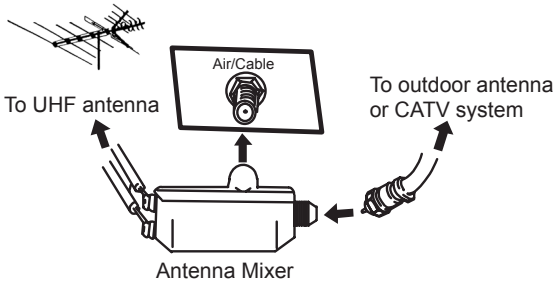
a) VHF (75-Ohm) antenna/CATV (Cable TV)
When using a 75-Ohm coaxial cable system, connect CATV coaxial cable to the AIR/CABLE (75-Ohm) terminal. Or if you have an antenna, connect the coaxial cable to the same AIR/CABLE terminal.



b) VHF (300-Ohm) antenna/UHF antenna
When using a 300-Ohm twin lead from an outdoor antenna, connect the VHF or UHF antenna leads to screws of the VHF or UHF adapter. Plug the adapter into the antenna terminal on the A/V Center.



c) When both VHF and UHF antennas are connected
Attach an optional antenna cable mixer to the TV antenna terminal, and connect the cables to the antenna mixer. Consult your dealer or service store for the antenna mixer



5 Power On... 24

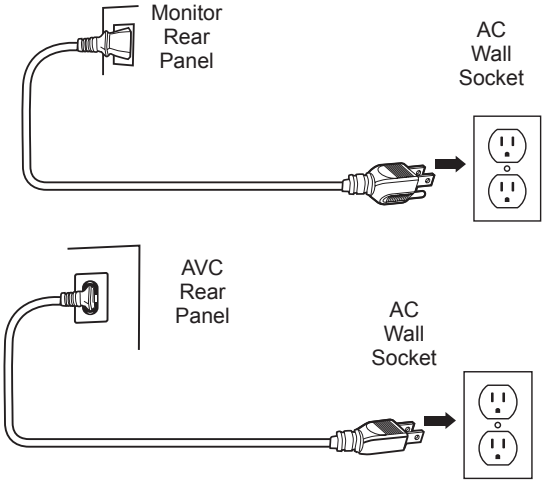
① Connect the plug into the wall socket after all other connections are completed.

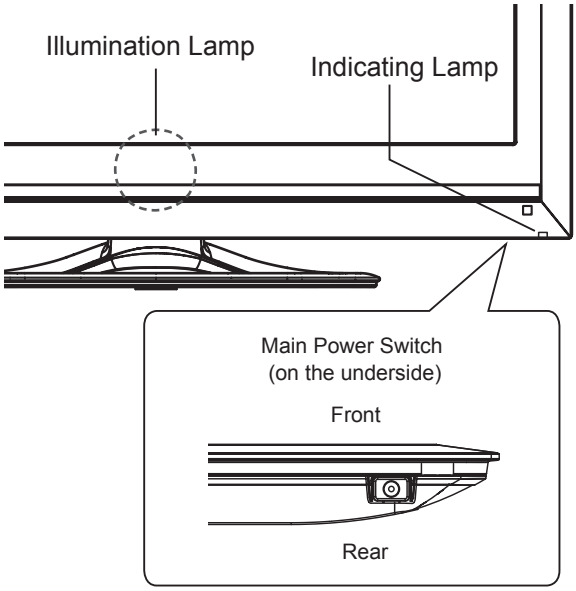
⚠CAUTION

• Ensure that both ends of the power cord are easily accessible.

The Main Power Switch is factory set to On (activated), therefore after you connect the plug into the wall socket, the color of the indicating lamp must turn Green and the Illumination Lamp turns Blue on Monitor and A/V Center.The image will display on screen.

Once the **Main Power** switch is on, you can turn On/ Off by pressing the **Power (On/Off)** button on the remote control.





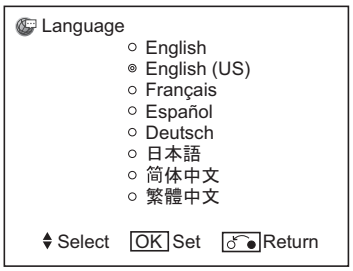
6 Language Selection

The initial language setting for on-screen displays is English (US).
You can change to your preferred language.

① Press the MENU button to display Main Menu.

② Select **"Language"** using the ▲▼ button.

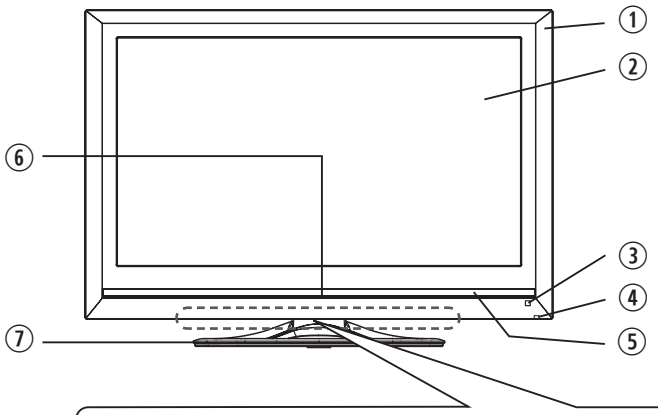
③ Select the language you prefer from the list using the ▲▼ button and then press the OK button.



COMPONENT NAMES

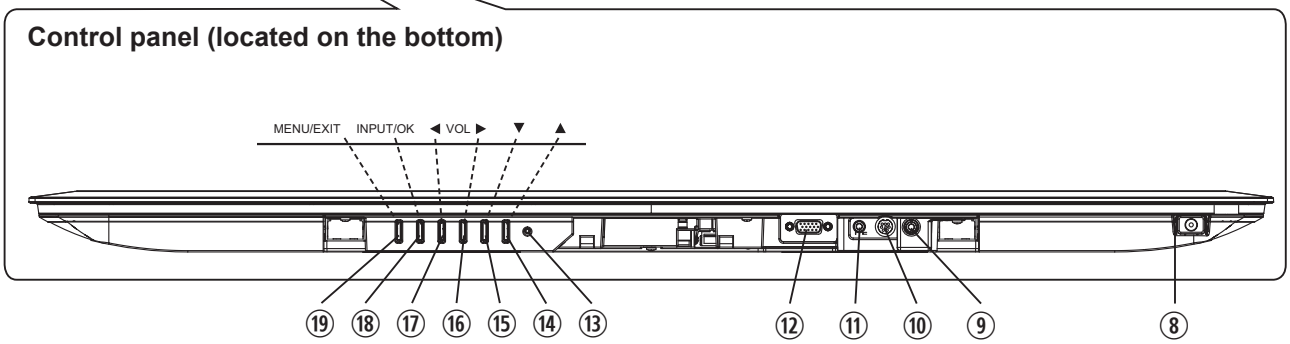
UT Monitor

Front Panel



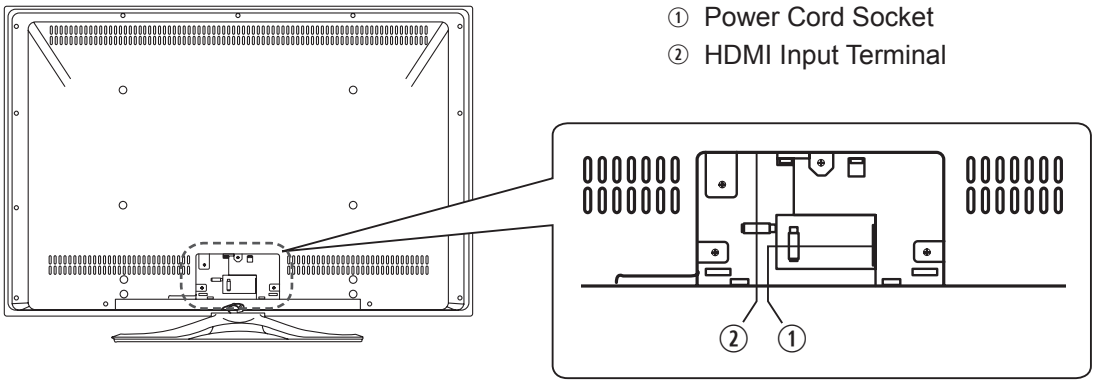
① Cabinet
② Panel
③ Remote Control Receiver
④ Indicating Lamp
⑤ Speaker
⑥ Illumination Lamp
⑦ Tabletop Stand

Control panel (located on the bottom)



⑧ Main Power switch
⑨ Service use only
⑩ RS232C
⑪ PC (RGB) Analog Audio Input Terminal
⑫ PC Connection Terminal (D-sub 15 Pin)
⑬ Reset button (See 46.)
⑭ ▲ button
⑮ ▼ button
⑯ Volume Up/► button
⑰ Volume Down/◄ button
⑱ Input Select/OK button
⑲ Menu/Exit button

Rear Panel



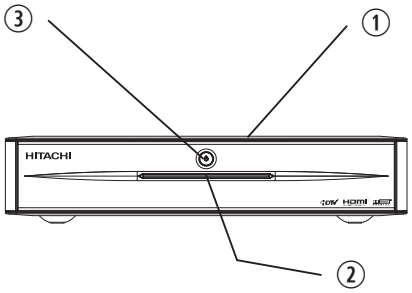
① Power Cord Socket
② HDMI Input Terminal

Please refer to 20~23 for detailed information regarding the connections.

COMPONENT NAMES(continued)

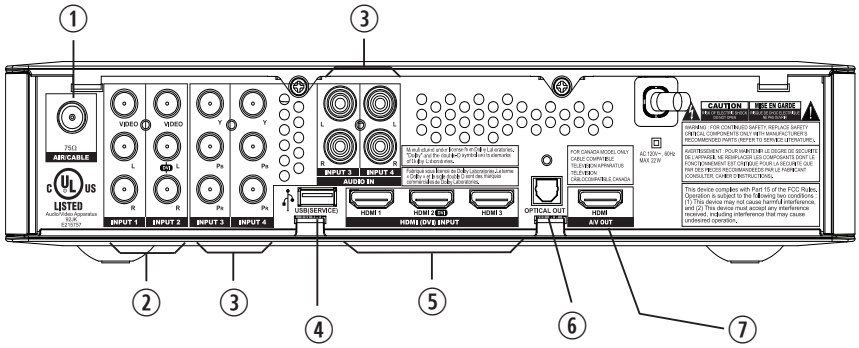
Audio Video Center

Front Panel



① **Cabinet**
② **Indicating Lamp**
③ **Power Off/On button**

Rear Panel



① **Antenna Input**
To switch between Cable and Air input, go to the Channel Manager option to change the signal source CABLE or AIR.

② **Audio/Video inputs 1 and 2 (Composite)**
INPUT-1 and 2 provide composite Video jacks for connecting equipment with this capability, such as a DVD player, Game Console or Camcorders.

③ **Audio/Video inputs 3 and 4 (Y-P_B P_R Components)**
INPUTS 3 and 4 provide Y-P_BP_R and Audio jacks for connecting equipment with this capability, such as a DVD player or Satellite Receiver.

NOTE
- Your component outputs may be labeled Y, B-Y, and R-Y. In this case, connect the components B-Y output to the P_B input and the components R-Y output to the P_R input.
- Your component outputs may be labeled Y-CBCR. In this case, connect the component CB output to the P_B input and the component CR output to the P_R input.
- It may be necessary to adjust TINT to obtain optimum picture quality when using the Y-PBPR inputs .

④ **USB Port(For S/W Upgrade only)**
This slot is for future software upgrades. Hitachi will notify you if a software upgrade is required for your A/V Center. In order to receive written notification, please complete and return your warranty card.

⑤ **HDMI Inputs1 and 3, HDMI 2/DVI Input**
Use the HDMI input for your external devices such as Satellite Receiver or DVD players equipped with an HDMI output to assure that pristine high-definition images retain the highest video quality from the source all the way to your monitor screen.

NOTE
- The HDMI input is not intended for use with personal computers.
- Only DTV formats such as 1080p, 1080i, 720p, 480i and 480p are available for HDMI input..

⑥ **Optical Output**
This jack provides Digital Audio Output for your audio device that is Dolby® Digital and PCM compatible, such as an audio amplifier.

NOTE
- *Manufactured under license from Dolby Laboratories. “Dolby” and the double-D symbol are trademarks of Dolby Laboratories.

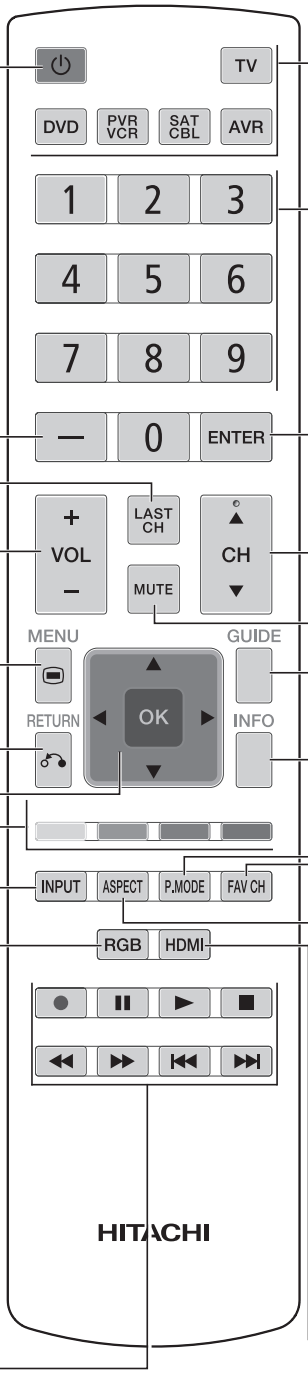
⑦ **HDMI Output(To UT Monitor)**
The **A/V Center HDMI output** terminal (AV Out) is connected to the UT Monitor. Only one cable is used to transmit all video/audio/control signals, thus facilitating an easy connection. Moreover, the digital signals can produce high quality data without any degradation.

*Please refer to 20~23 for detailed information regarding the connections.

COMPONENT NAMES (continued)

Remote Control

In addition to controlling all of the functions on your Hitachi UT LCD Monitor and A/V Center, the new remote control is designed to operate different types of devices, such as, DVD players, Cable Boxes, Set-Top-Boxes, Satellite Receivers, VCR's, PVR's and AVR's. The remote control must be programmed to control the chosen device. Please refer to pages 27~30 for external device programming setup.



Power On/Off
(Monitor, TV, DVD, PVR/VCR, SAT/CBL, AVR)
Press this button to switch the selected device On or Off standby.

(-) Dash Button
(TV, SAT,PVR,DVD)
Press this button when the remote is in Set-Top-Box mode (SAT) or when the TV uses a digital input.

Last Channel Button
(TV, SAT/CBL, PVR)
Press this button to switch between the current and the last channel viewed.

Volume Buttons
(Monitor, TV, AVR)
Press up (+) to increase or down (-) to decrease the audio level of your TV.

Menu Button
(Monitor, TV, DVD, PVR/VCR, SAT/CBL, AVR)
Accesses the OSD menu system.

Return Button
(Monitor, TV,DVD, PVR/VCR, SAT/CBL, AVR)
Press this button to return to the previous menu.

Cursor PAD/OK Buttons
(Monitor, TV, DVD, PVR/VCR, SAT/CBL, AVR)
The Cursor PAD is used to navigate through the OSD and INPUT menu system, The OK button is used to Set/Activate highlighted menu items.

Color Buttons
(SAT/CBL)
Use them for certain CBL/SAT device in OSD navigation or features.

Input Select
(Monitor, TV, AVR)
Press this button to change input mode.

RGB Input Select
(Monitor)
Press this button to select RGB (/Monitor Composite) input.

DVD/VCR CONTROL BUTTONS
(DVD, PVR/VCR, AVR)
Control the functions of your DVD and VCR.

Device Buttons
(TV, DVD, PVR/VCR, SAT/CBL, AVR)
Press these buttons to switch between your devices.

Numeric Buttons
(TV, DVD, PVR/VCR, SAT/CBL, AVR)
Press these buttons to manually enter the channel and for numeric entry when navigating through the OSD menu system.

Enter Button
(TV, DVD, VCR, SAT/CBL)
Press this button to use as a SELECT feature.

Channel Up/Down Buttons
(TV, PVR/VCR, SAT/CBL)
Changes up or down the channel.

Mute
(Monitor, TV, AVR)
Press this button once to turn off temporally the audio level, press it again to restore audio level.

Guide Button
(SAT/CBL, PVR,DVD)
Press this button to access the program guide of TV and other devices.

Info Button
(Monitor, TV, DVD,SAT/CBL, PVR)
Shows the input signal status and other information.

Picture Mode
(Monitor, TV)
Picture mode can be changed each time pressed in the following sequence.
Dynamic → Natural → Cinema

Favorite Channel Button
(TV,SAT/CBL, PVR)
Press to enter/access Favorite Channel mode.

Aspect
(Monitor, TV)
Press this button to change picture size.

HDMI Input Select
(Monitor, TV)
Press this button to select HDMI input for Monitor or A/V Center mode for TV..

LEGENDS

TV - Television
DVD- Digital Video Disc Player
AVR - Audio/Video Receiver
VCR - Video Cassete Recorder
SAT - Satellite Receiver
PVR - Personal Video Recorder
CBL - Cable Box

NOTE
- For the Record button there is a feature for safety; so this key have to be press twice in order to start recording.
- Monitor Mode is when the A/V Center is not connected to the Monitor's HDMI Input.

PREPARATION

Remote Control Battery Installation

The remote control operates on **2 "AAA"** batteries.

1. Open the battery compartment cover

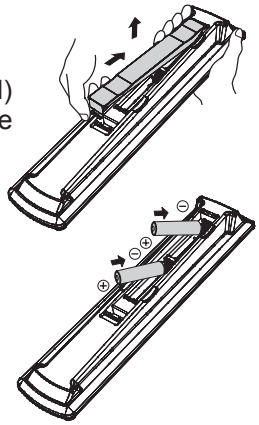
- Push and pull open the battery compartment cover on the backside in the direction of the arrow, and remove the cover.

2. Install the batteries

- Install 2 "AAA" batteries (included) making sure the polarities match the indication inside the compartment.

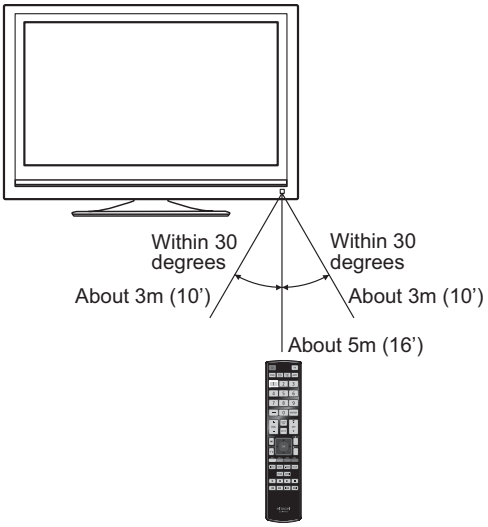
3. Close the battery compartment cover

- Make sure the tabs rest in the corresponding holes and push down the compartment cover until it clicks shut.



Handling the Remote Control

Use the remote control within a distance of about 5m (16') from the front of the unit's remote control sensor and within an angle of about 30 degrees on both sides.



⚠CAUTION

Risk of corrosion or battery leakage. Tampering with batteries may result in physical injury and/or property damage including fire.

- Never mix used and new batteries in the device.
- Replace all the batteries in the device at the same time.
- Remove the batteries if the remote control is not going to be used for an extended period of time.

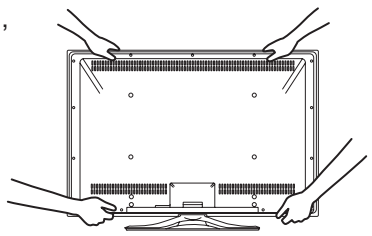
To avoid possible malfunction, read the following instructions and handle the remote control correctly.

- Do not drop or allow impact to affect the remote control.
- Do not spill water or any liquid on the remote control.
- Do not place the remote control on a wet surface.
- Do not place the remote control under direct sunlight or near sources of excessive heat.

Caution When Moving the Main Unit

Whenever the unit is moved, two people are required to transport it safely.

Whenever the unit is moved, it should be lifted forwards by holding the top and base on both sides of the unit for stability.



CONNECTION

The unit is suitable for various kinds of connections. Make a connection in the following steps. Be sure to turn off the main power first when connecting external equipment.

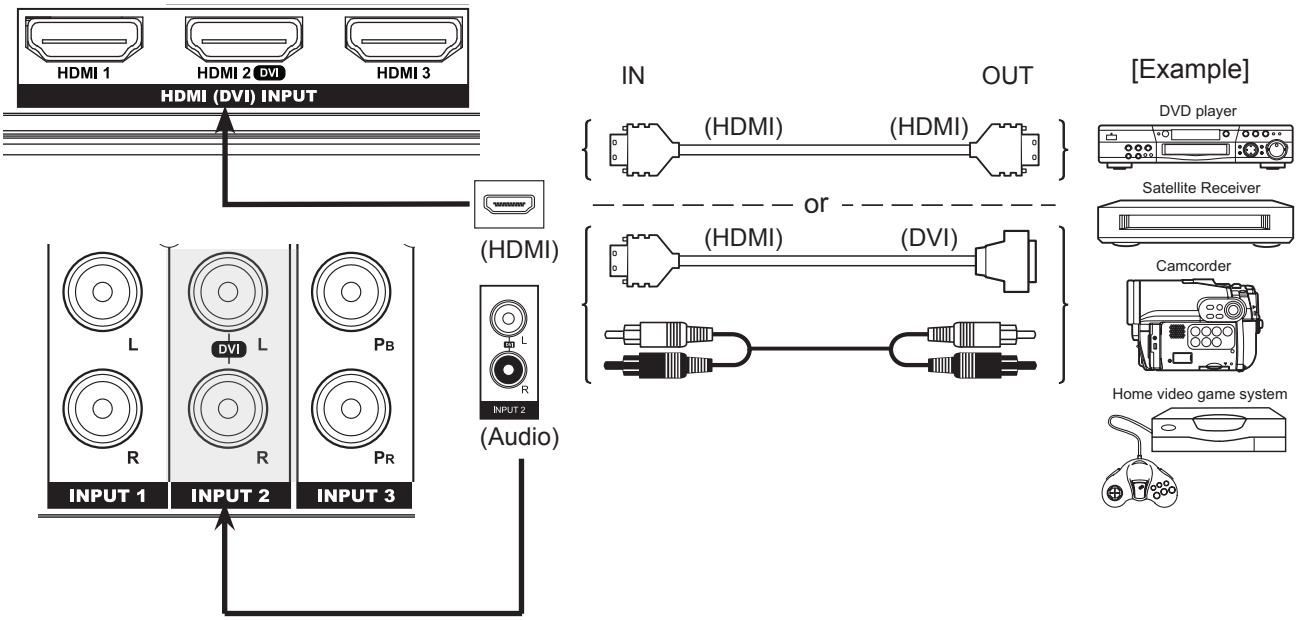
NOTE

Do not connect the power plug to the wall socket until all other connections are completed.

1. Connect your Equipment to the A/V Center

Connecting to Equipment Having HDMI or DVI Output Terminals

The **A/V Center HDMI** Input terminals can be connected to devices with HDMI output.
If the external device has a DVI output, this can be connected to the HDMI 2 input terminal using the HDMI-DVI cable. If the HDMI-DVI cable is used, connect the audio signal to the Input 2 Audio terminals.



HDMI-Interfaced System

With **"HDMI-CEC"** function, you can interface the connected equipment through the HDMI terminal automatically if the connected equipment meets an industry standard "HDMI CEC (Consumer Electronics Control)". Please check if the connected equipment supports HDMI CEC before using this function.

Information

The HDMI (High Definition Multimedia Interface) is a multimedia I/O (Input/Output) interface. Only one cable is used to transmit all video/audio/control signals, thus facilitating easy connection.
Moreover, the digital signals can produce high quality data without any degradation.

If your external device has an HDMI terminal, HDMI connection is recommended for higher quality picture and sound.

NOTE

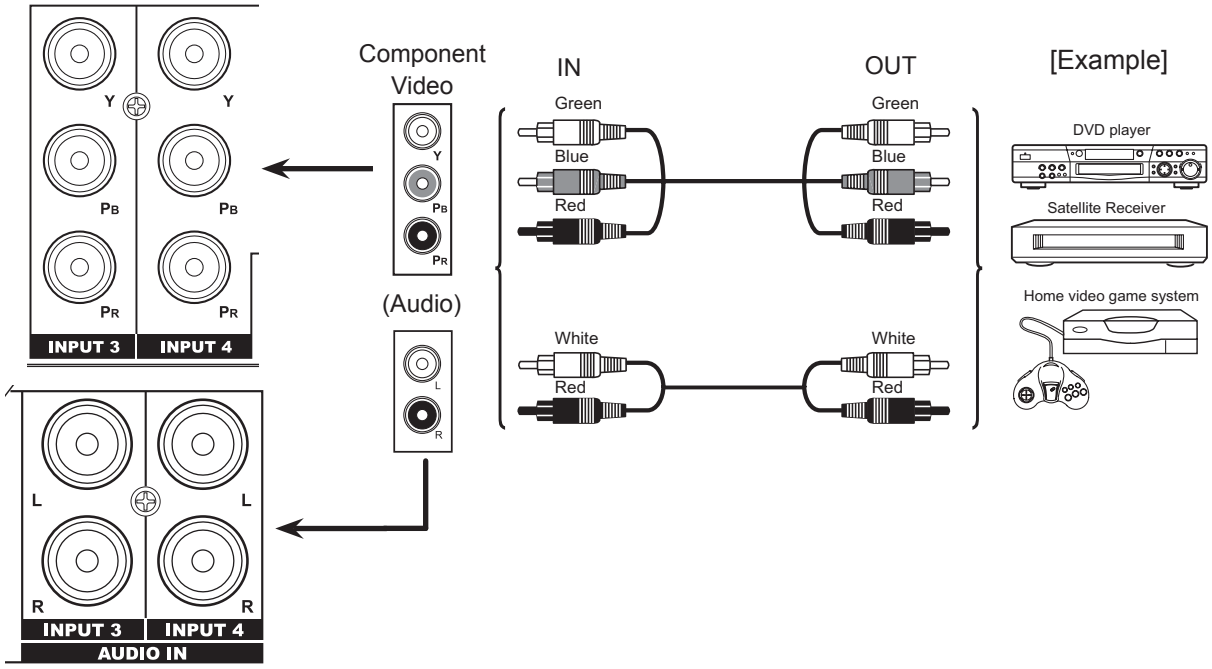
Please be sure to insert completely all HDMI or DVI cables when connecting to avoid abnormal picture.
Make sure that the video and audio terminals are connected to the same external device.
For details of the output format of an external device, refer to "Recommended Signal List" on 50.

CONNECTION (continued)

1. Connect your Equipment to the A/V Center (continued)

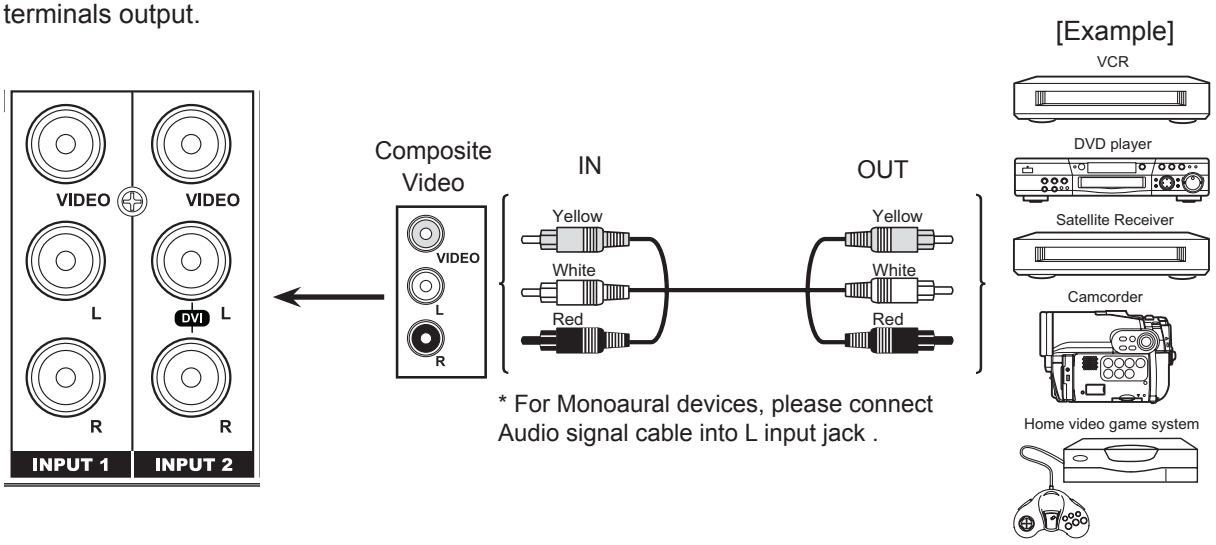
Connecting to Equipment Having a YPbPr Component Output Terminals

The **A/V Center YPbPr** Input 3 and 4 terminals can be connected to devices equipped with YPbPr or YCbCr terminals output. Connect the Y, PB/CB, PR/CR OUT of the device to the INPUT 3 or 4 YPBPR jacks.Connect the AUDIO OUT signal to the Input 3 and 4 AUDIO IN terminals respectively.



Connecting to Equipment Having Video Output Terminals

The **A/V Center Video Composite** Input 1 and 2 terminals can be connected to devices equipped with standard Video terminals output.



* For Monoaural devices, please connect Audio signal cable into L input jack .

NOTE

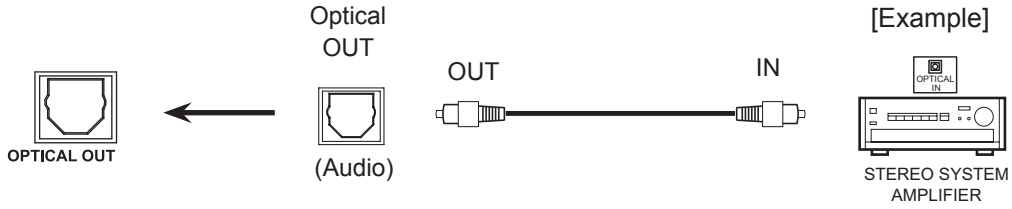
Please be sure to insert completely all cables when connecting to avoid abnormal picture and sound.
Make sure that the video and audio terminals are connected to the same external device.
Cable plugs are often color-coded. Match colors of plugs and terminals, i.e. connect red to red, white to white, etc.
For details of the output format of an external device, refer to "Recommended Signal List" on 50.

CONNECTION (continued)

1. Connect your Equipment to the A/V Center (continued)

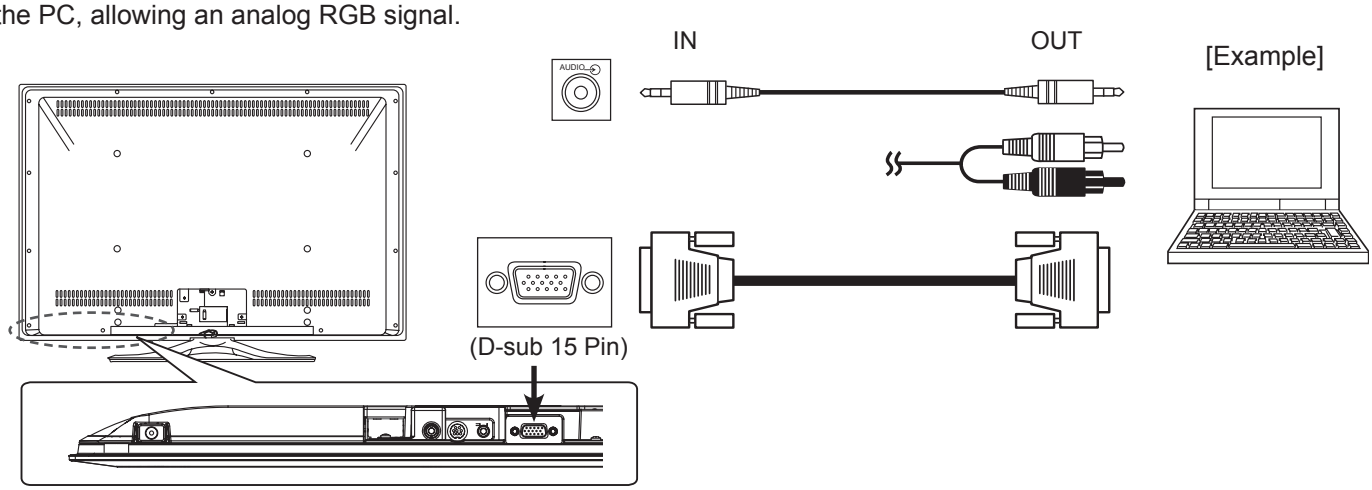
Connecting to Equipment Having a Audio Digital Input Terminal

The **A/V Center "OPTICAL OUT"** Audio terminal can be connected to devices equipped with Optical Input capabilities such as Audio Amplifiers Systems. The "OPTICAL OUT" from the A/V Center Rear Panel is a fixed output. The Volume of the amplifier is controlled by the amplifier, not by the A/V Center Unit. The OPTICAL OUT terminal outputs all audio sources.

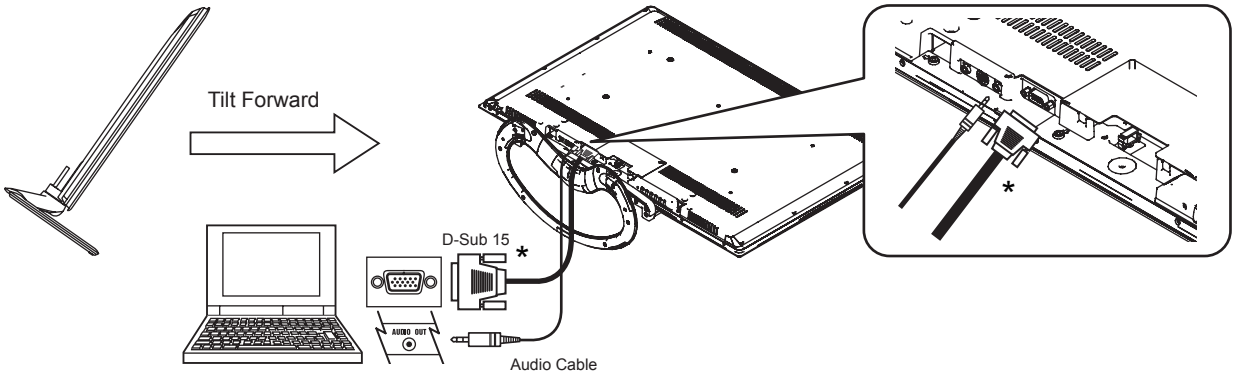


2. Connecting to a PC(on Monitor Side)

The **PC connection** terminal (D-sub 15 pin) + the **PC (RGB) Analog Audio Input** terminal are connected to the PC, allowing an analog RGB signal.



To insert D-sub 15 pin, tilt the monitor forward and bring the terminals into view. Two people are required to hold the monitor and insert D-sub 15 pin safely. Be careful not to damage the panel.



NOTE

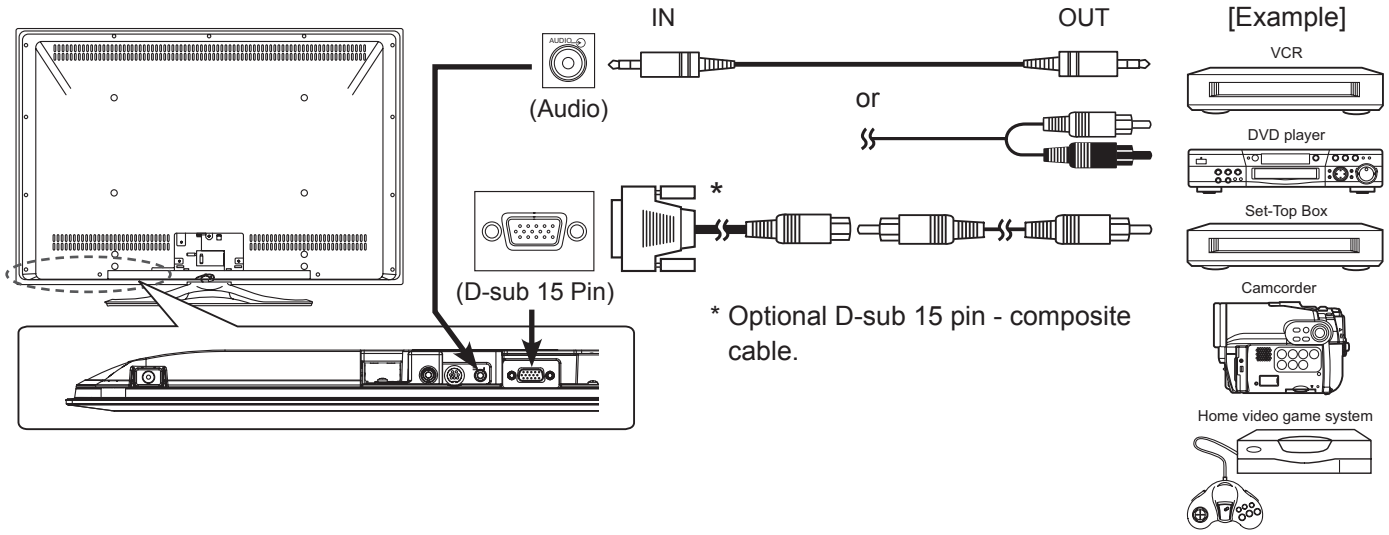
• *D-sub 15 and Audio cables are not included.

CONNECTION (continued)

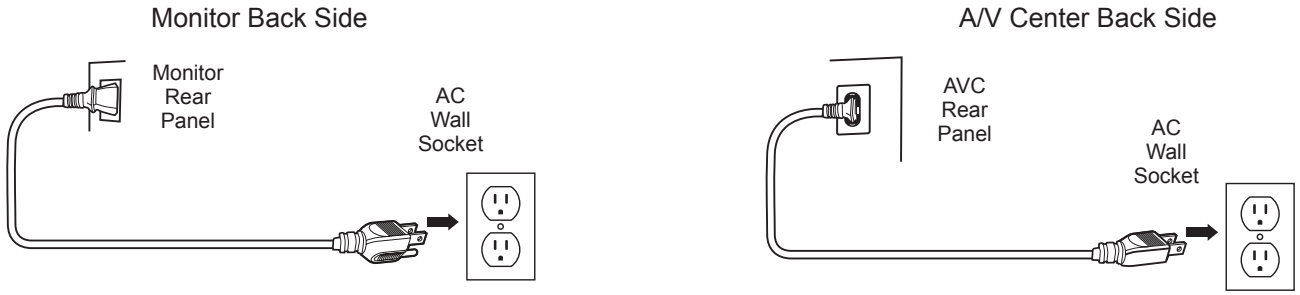
3. Connecting to Equipment Having Video Output Terminals (on Monitor side)

The Monitor can be connected to equipments having video output using the optional D-sub 15 pin - composite cable.

Your UT Monitor is capable to receive composite video, you can watch images from your external equipments through the optional D-sub 15 pin - composite cable, but A/V Center provides more practical terminals.



4. Connect the Power Plugs into the Wall Socket



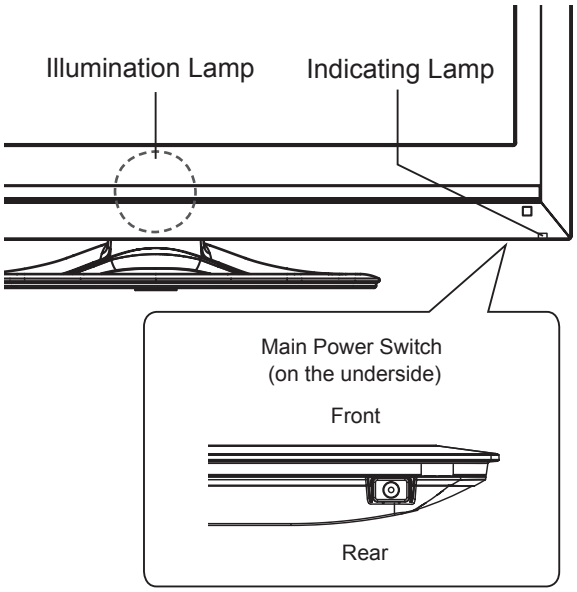
⚠ CAUTION

- Use only the power cord provided.
- Do not use a power supply voltage other than that indicated (AC120, 60Hz). It may cause fire or electric shock.
- For the LCD monitor, a three-core power cord with a ground terminal is used for efficiency protection. Always be sure to connect the power cord to a three-pin grounded outlet and make sure that the cord is properly grounded. If you use a power source converter plug, use an outlet with a ground terminal and screw down the ground line.
- Ensure that both ends of the power cord are easily accessible.
- If you have to change the power cord, please use a certified power cord that meets your region's safety standards.

BASIC OPERATION

Power On/Off

Turn On the power of the unit.



• To turn On the power to the unit:

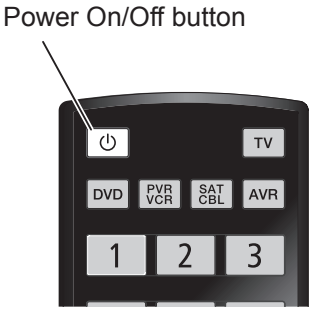
1. Press the **Main Power** switch on the unit.
- The Indicating Lamp illuminates in Green on Monitor/Blue on A/V Center, and the Illumination Lamp turns Blue.
  The image will display on screen.

2. Once the **Main Power** switch is on, you can turn On/Off by pressing the **Power (On/Off)** button on the remote control.

• To turn Off the power to the unit:

1. Press the **Power (On/Off)** button on the remote control.
- The image disappears from the screen. The Indicating Lamp turns **Red** (Standby mode) on Monitor and A/V Center, and the Illumination Lamp turns off.

2. Press the **Main Power** switch on the Monitor to completely turn Off the power to the Monitor.



NOTE

- While the Indicating Lamp illuminates in Red (Standby mode), you can turn On/Off by pressing the **Power (On/Off)** button on the remote control.

The Indicating Lamp/Illumination Lamp Status of the Monitor

Indicating Lamp	Illumination Lamp	Power Status	Remark
Off	–	Off	–
Red	–	Standby mode	–
Green	Blue	On	–
Orange	–	Power Save mode	Refer to 44 for the condition.
Blinking Green	Blue	On	Receiving Remote Control signal

The Indicating Lamp Status of A/V Center

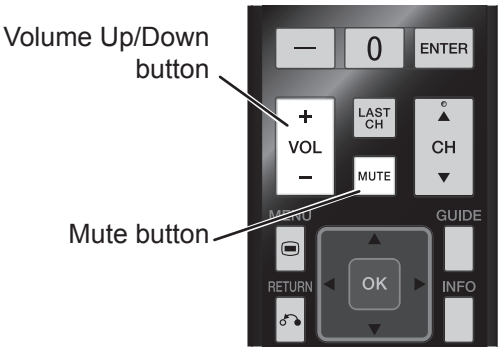
Indicating Lamp	Power Status
Off	Off
Red	Standby mode
Blue	On

NOTE

- If the image does not appear on the screen at all, or if there is any problem with it, see “TROUBLESHOOTING” on 45~47. This may help you to solve the problems.
- After turning On, it takes about 6 seconds until the monitor starts up. Please note that buttons on the remote control and the unit (such as the Power button) do not work during this period of time.
- If power is interrupted during use of the unit, to avoid sudden surges of electricity when the power comes back on, turn off the main power to the unit before leaving home.

BASIC OPERATION (continued)

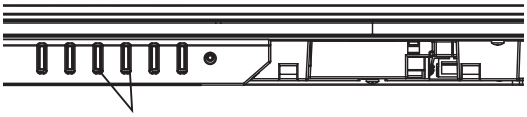
Volume Up/Down



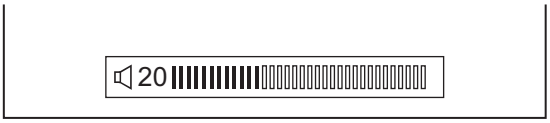
1. To increase the sound volume, press the **Volume Up** button on the remote control or control panel.
- The Volume Indicator value on the screen will shift to the right.

2. To decrease the sound volume, press the **Volume Down** button on the remote control or control panel.
- The Volume Indicator value on the screen will shift to the left.

Mute



1. To mute sounds, press the MUTE button on the remote control.
- The sound of the unit is temporarily turned Off.
- The color of the Volume Indicator will turn into **grey** while muting the volume.



2. To turn the sound back on, press the MUTE button again, or press the **Volume Up** button on either the remote control or control panel.
- The color of the Volume Indicator will turn back to **blue**.

NOTE
- You can decrease the volume by pressing the **Volume Down** button while the sound is muted.

Channel Selector/Favorite Channel

The CHANNEL SELECTOR buttons are used to select channels, lock access code, etc. Use the CHANNEL SELECTOR buttons to enter one, two, or three numbers to select channels. Enter 0 first for channels 1 to 9, or simply press the single digit channel you wish to tune then press the OK button for the TV to tune. Channel selection may also be performed by CHANNEL (CH) UP (▲) or CHANNEL (CH) DOWN (▼).

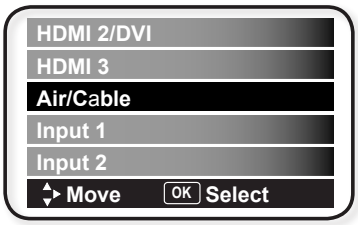
Press the FAV CH button to switch to Favorite(FAV) channel mode. You will know you are in Favorite Channel mode when (FAV) is displayed and the displayed channel is GREEN. Press it again to return to your regular tuned channels. You can add or delete any channel to your Favorite channel list by pressing FAV CH button on A/V Center/Setup/ Channel List menu.

BASIC OPERATION (continued)

Input Switching

Press the button [INPUT] to access the INPUTS menu. Use the CURSOR and OK buttons to scroll and select the inputs that are being used. Pressing the INPUT button repeatedly will also cycle through the Inputs menu items. Then press the [◄►] and [OK] buttons to select.

Input Select button

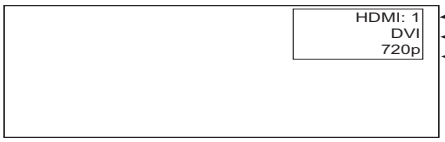


AIR/CABLE Select between Air or Cable signal.
INPUT 1 Select to choose Input 1.
INPUT 2 Select to choose Input 2.
INPUT 3 Select to choose Input 3.
INPUT 4 Select to choose Input 4
HDMI 1 Select to choose HDMI 1 Input.
HDMI 2/DVI Select to choose HDMI 2/DVI Input.
HDMI 3 Select to choose Side HDMI Input.
Press RGB button to enter to RGB Mode, Press HDMI to return to A/V Center Mode.

Input Signal Screen Display

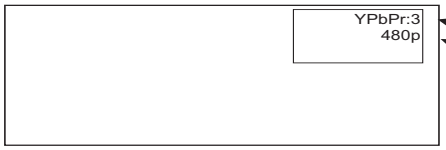
The input signal status can be displayed on the screen by pressing the INFO button on the remote control.
• The display will go out in approximately 6 seconds.

HDMI mode



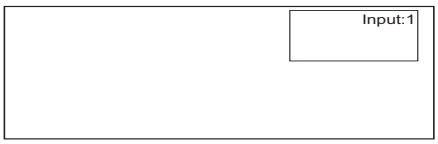
Input mode
*
Signal mode
* When DVI is detected

YPbPr Component mode



Input mode
Signal mode

Video Composite mode

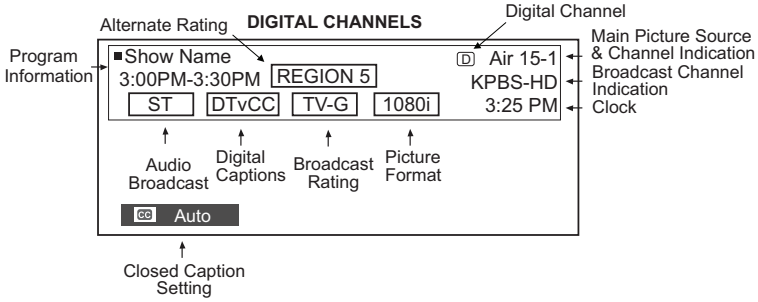


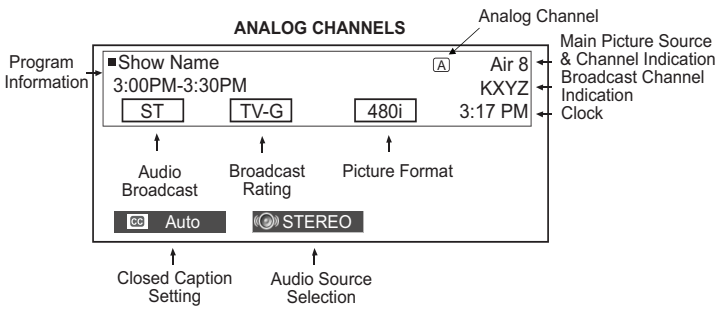
RGB mode

Input mode
Input horizontal frequency
Input vertical frequency

INFO button

Air/Cable mode





NOTE

- For Digital Channels press the INFO button again for a more detailed description of program.
- Press the INFO button again to return to normal viewing.
- The Aspect setting will not be shown if the channel is locked.

SETUP OPERATION

How to Use the Remote to Control your External Devices

OPERATING THE PRECODED FUNCTIONS FOR YOUR EXTERNAL DEVICES.

The new remote control is designed to operate different types of VCRs, cable boxes, set-top-boxes, satellite receivers, DVD players, and other audio/video equipment. You must first program the remote to match the remote system of your external equipment (refer to pages 31 ~ 32 for precodes).

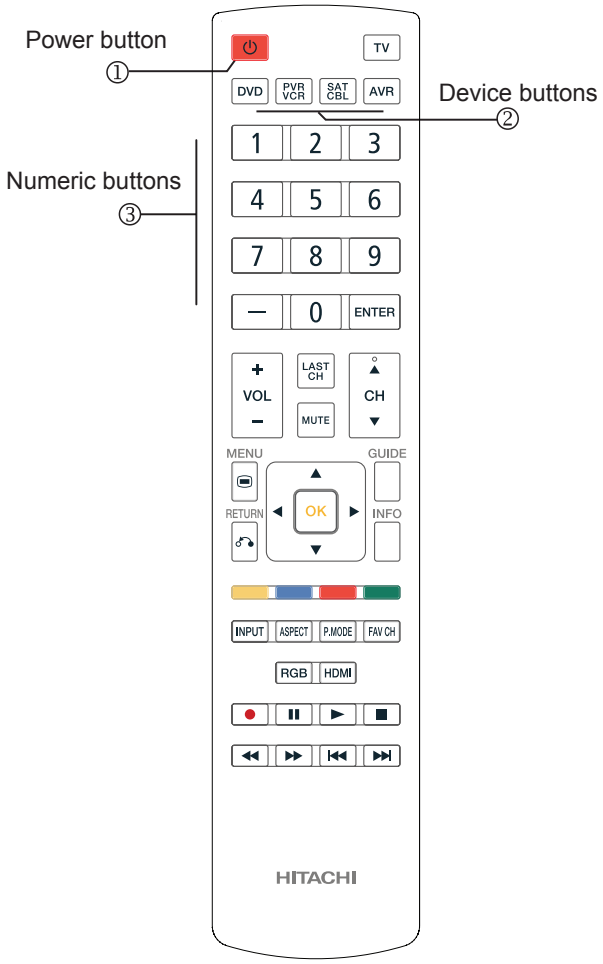
EXTERNAL DEVICE CONTROL SETUP PROCEDURE

1. Turn on your external device.
2. Select the desired device mode DVD, PVR/VCR, SAT/CBL or AVR by pressing the corresponding device button.
3. Hold down the device button (DVD, PVR/VCR, SAT/CBL or AVR) on the remote and enter the four digit preset code that matches your device as shown on pages 31 ~ 32.
4. Release the device button.
5. If done correctly, the device LED indicator will blink 3 times to confirm proper setup.
6. The remote will now control the desired device.

SETUP EXAMPLE (Hitachi Cable Box with precode 0003)

1. Turn ON your Cable box.
2. Select Cable mode by using your SAT/CBL button to position the LED indicator on SAT/CBL.
3. Hold down the SAT/CBL button on the remote and press the numbers 0, 0, 0 and 3.
4. Release the SAT/CBL button.
5. The indicator light will flash 3 times if the code was accepted.
6. Aim the remote at the cable box and press the POWER button. The remote will turn off your cable box when the correct four digit preset code is entered. When this occurs, the remote control is programmed for your cable box. If the cable box does not turn off, try a different four digit preset code.
7. The remote will now control your Cable box.

Repeat the same procedure for your set-top-box or satellite receiver (select SAT/CBL), your DVD (select DVD), your VCR/PVR(select VCR/PVR), or your AVR (select AVR).

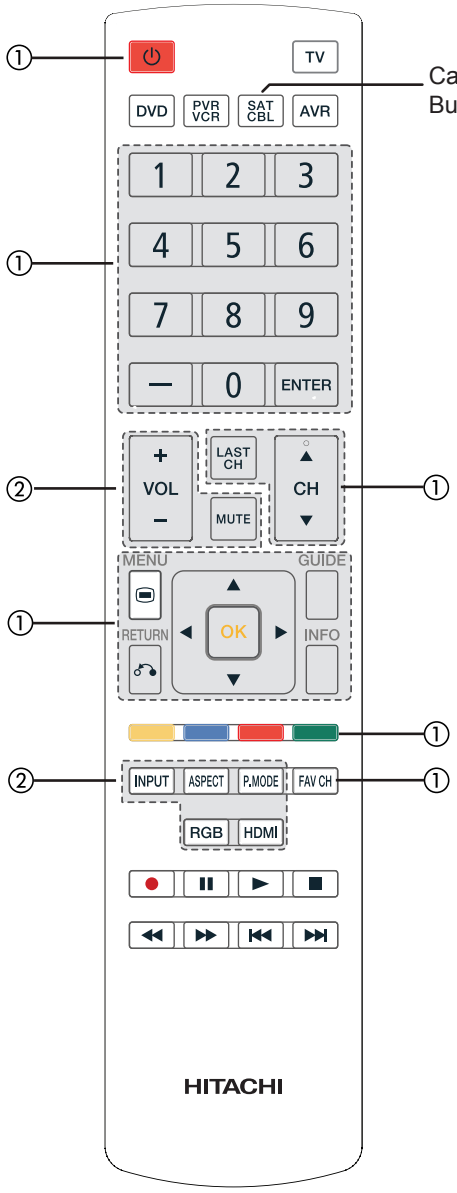


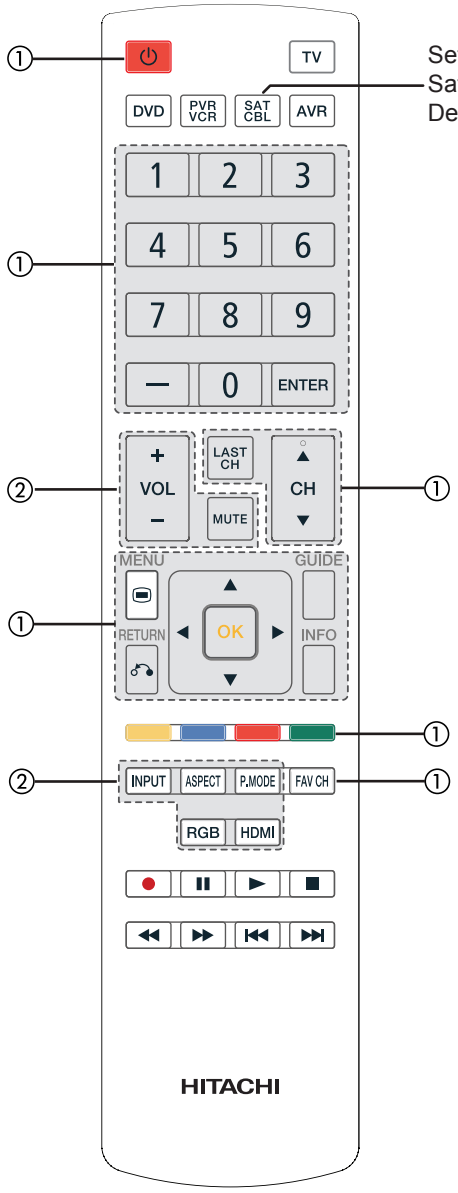
NOTE

- If your external device cannot be operated after performing the above procedures, your external device code has not been precoded into the remote.
- In the unlikely event that your external device cannot be operated after performing the above procedures, please consult your external device operating guide.
- The remote control will remember the codes you have programmed even after the batteries are removed from the remote control. To reset all programmed codes to factory default place remote control in TV mode, then press and hold TV mode key and enter “9”, “8”, “1” in sequence.

SETUP OPERATION (continued)

How to Use the Remote to Control your External Devices





MY CABLE BOX CODE IS:_____

NOTE

• Refer to the operating guide of the Cable Box for operation of the buttons exclusively for the Cable Box.

① **PRECODED CABLE BOX buttons**

These buttons transmit the chosen precoded cable codes :

-Power	-Cursor & OK	-Number PAD
-Menu	-Info	-Enter
-Return	-Channel Up & Down	-Fav CH
-Guide	-Dash(-)	-Color Buttons
-Last CH		

② **EXCLUSIVE TV mode (Monitor) buttons**

These buttons are for operating the TV :

-P. Mode	-HDMI	-Input
-Aspect	-Vol Up & Down	
-RGB	-Mute	

MY SET-TOP-BOX/SATELLITE RECEIVER CODE IS:_____

NOTE

• Refer to the operating guide of the Set-Top-Box/Satellite Receiver for operation of the buttons exclusively for the Set-Top-Box/Satellite Receiver.

① **PRECODED SET-TOP-BOX/SATELLITE buttons**

These buttons transmit the chosen precoded STB/Satellite codes :

-Power	-Cursor & OK	-Number PAD
-Menu	-Info	-Enter
-Return	-Channel Up & Down	-Fav CH
-Guide	-Dash(-)	-Color Buttons
-Last CH		

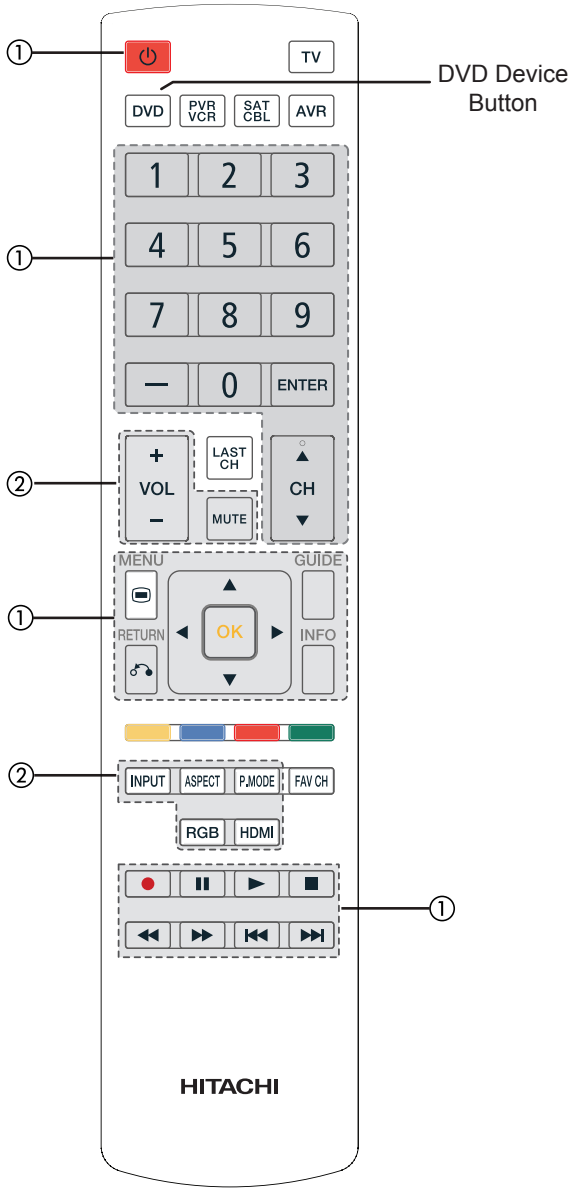
② **EXCLUSIVE TV mode (Monitor) buttons**

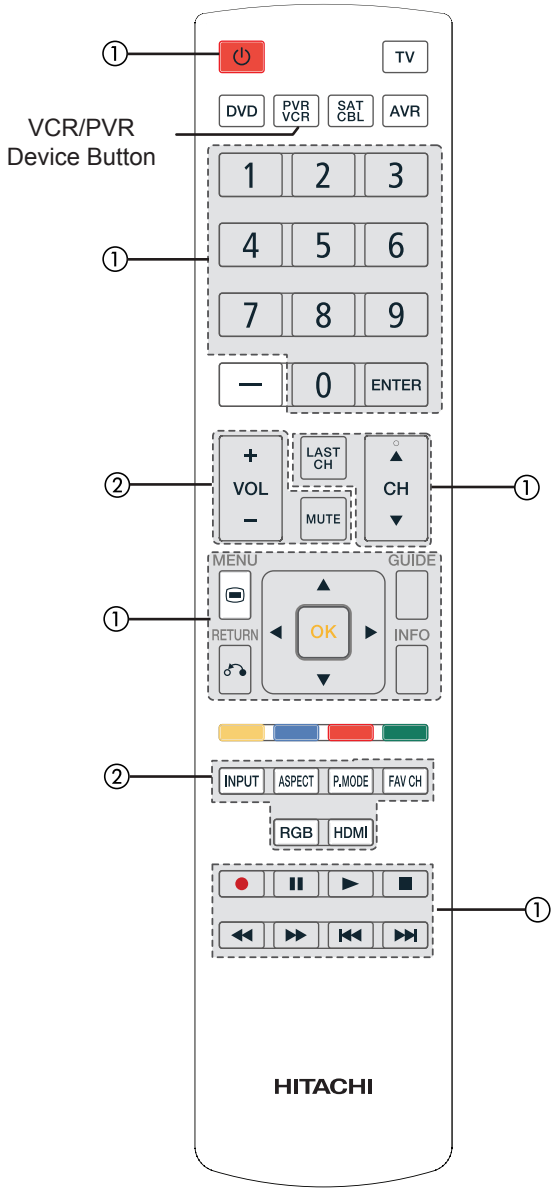
These buttons are for operating the TV :

-P. Mode	-HDMI	-Input
-Aspect	-Vol Up & Down	
-RGB	-Mute	

SETUP OPERATION (continued)

How to Use the Remote to Control your External Devices





MY DVD PLAYER CODE IS:_____

NOTE

- Refer to the operating guide of the DVD Player for operation of the buttons exclusively for the DVD Player.

① PRECODED DVD buttons

These buttons transmit the chosen precoded DVD codes :

-Power	-Cursor & OK	-Play, Stop, Pause, RWD, FWD, Skip RWD, Skip FWD, Rec
-Menu	-Info	
-Return	-Number PAD	
-Guide	-Dash(-)	-Enter

② EXCLUSIVE TV mode (Monitor) buttons

These buttons are for operating the TV :

-P. Mode	-HDMI	-Input
-Aspect	-Vol Up & Down	
-RGB	-Mute	

MY VCR/PVR CODE IS:_____

NOTE

- Refer to the operating guide of the VCR/PVR for operation of the buttons exclusively for the VCR/PVR.

① PRECODED VCR/PVR buttons

These buttons transmit the chosen precoded VCR/PVR codes :

-Power	-Cursor & OK	-Record
-Menu	-Channel Up & Down	-Play, Stop, Pause, RWD, FWD, Skip (FWD,RWD)
-Return	-Number PAD	
-Info	-Last CH	
-Guide	-FAV CH	

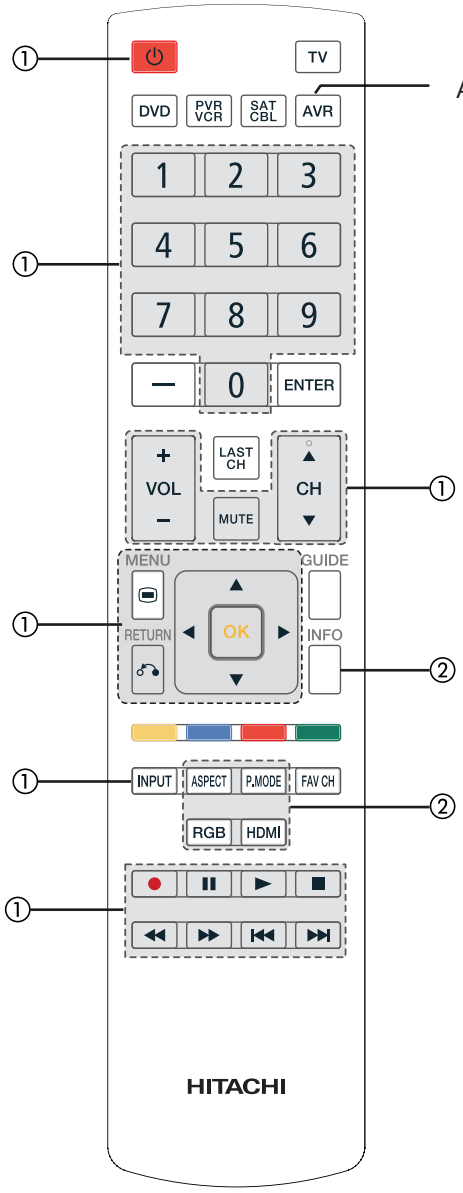
② EXCLUSIVE TV mode (Monitor) buttons

These buttons are for operating the TV :

-P. Mode	-HDMI	-Input
-Aspect	-Vol Up & Down	
-RGB	-Mute	

SETUP OPERATION (continued)

How to Use the Remote to Control your External Devices



MY AUDIO/VIDEO RECEIVER (AVR) CODE IS:_____

NOTE

• Refer to the operating guide of the AVR for operation of the buttons exclusively for the AVR.

① **PRECODED AVR buttons**

These buttons transmit the chosen precoded cable codes :

-Power	-Channel Up & Down	-Input
-Number PAD	-Vol Up & Down	-Mute
-Cursor PAD	-Menu	-Return

② **EXCLUSIVE TV mode buttons**

These buttons are for operating the TV :

-P. Mode	-HDMI	-Info
-Aspect	-RGB	

SETUP OPERATION (continued)

Remote Control Codes

CABLE Brand	CODES
A-MARK	0008,0144
ABC	0237,0003,0008
ACCUPHASE	0003
ACORN	0237
ACTION	0237
ACTIVE	0237
ADB	2092,2586
ARCHER	0237
BCC	0276
BRITISH TELECOM	0003
CENTURY	0008
DIGEO	1187,2187
DIGI	0637
DIRECTOR	0476
DUMONT	0637
FOSGATE	0276
GE	0144
GENERAL INSTRUMENT	0476,0810,0276 0003
GIBRALTER	0003
GOLDSTAR	0144
HITACHI	0003,0008
INSIGHT	0476,0810
JERROLD	0476,0810,0276 0003
MEMOREX	0000
MITSUBISHI	0003
MOTOROLA	1376,0476,0810 0276,1187,1254 1106
NOVA VISION	0008
NOVAPLEX	0008
NSC	0637
PACE	1877,0877,0237 0008
PANASONIC	0000,0008,0144
PANTHER	0637
PARAGON	0000,0008,0525
PENNEY	0000,0637
PHILIPS	1305,0317
PIONEER	1877,0877,0144 0533
PULSAR	0000
QUASAR	0000
REGAL	0276
RUNCO	0000
SAMSUNG	0003,0144
SASKTEL	1737
SCIENTIFIC ATLANTA	1877,0877,0477 0237,0003,0000 0008
SONY	1006
SPRUCER	0144
STARCOM	0003
STORM	0637
SUPERCABLE	0276
TORX	0003
TOSHIBA	0000
UNITED CABLE	0276,0003
US ELECTRONICS	0276,0003,0008
VIDEOWAY	0000
ZENITH	0000,0525

CABLE/PVR COMBO	CODES
DIGEO	1187,2187
GENERAL INSTRUMENTS	0810
JERROLD	0810
MOTOROLA	1376,0810,1187 1106
PACE	1877,0237
PIONEER	1877,0877
SASKTEL	1737
SCIENTIFIC ATLANTA	1877,0877
SONY	1006
SUPERCABLE	0276

SATELLITE BRAND (Set Top Box)	CODES
BELL EXPRESSVU	0775,1170
CHAPARRAL	0216
COOLSAT	1806,2147
CROSSDIGITAL	1109
DIRECTV	1377,0392,0566 0639,1639,1142 0247,0749,1749 0819,1856,1076 1108,0099,1109 1392,1414,1442 1443,1609,1640
DISH NETWORK SYSTEM	1505,1005,0775 1170,1775
DISHPRO	1505,1005,0775 1775
ECHOSTAR	1505,1005,0775 1170,1775
EXPRESSVU	0775,1775
FORTEC STAR	1821
FUNAI	1377
GE	0392,0566
GENERAL INSTRUMENTS	0869
GOI	0775,1775
HITACHI	0749,0819,1250
HOUSTON	0775
HTS	0775,1775
HUGHES NETWORK SYSTEMS	1142,0749,1749 1442,1443
INNOVA	0099
JERROLD	0869
JVC	0775,1170,1775
LG	1414
MAGNAVOX	0722
MCINTOSH	0869
MITSUBISHI	0749
MOTOROLA	0869,0856
NETSAT	0099
NEXT LEVEL	0869
PANASONIC	0247,0701
PANSAT	1807
PHILIPS	1142,0749,1749 0775,0819,1076 0722,0099,1442
PIONEER	1142,1442
PRIMESTAR	0869
PROSCAN	0392,0566
RADIOSHACK	0566,0775,0869
RCA	0392,0566,1142 0775,0855,0143 1392,1442
SAMSUNG	1377,1142,1276 1108,1109,1442 1609
SKY	0856,0099
SONY	0639,1639,1640
STAR CHOICE	0869
STAR TRAK	0869
THOMSON	0392,0566
TIVO	1142,1442,1443
TOSHIBA	0749,1749,0790
ULTIMATE TV	1392,1640
ULTRASAT	1806
UNIDEN	0722
VOOM	0869
ZENITH	0856,1856,1810

SAT/PVR COMBO	CODES
BELL EXPRESSVU	0775,1170
DIRECT TV	1377,0392,0639 1142,1076,0099 1392,1442,1443 1640
DISH NETWORK SYSTEM	1505,0775
DISH PRO	1505,0775
ECHOSTAR	1505,0775,1170
EXPRESSVU	0775
HUGHES NETWORK SYSTEMS	1142,1442,1443
JVC	1170
MOTOROLA	0869
PHILIPS	1142,1442
PROSCAN	0392
RCA	1392
SAMSUNG	1442
SONY	0639,1640
STAR CHOICE	0869
TIVO	1142,1442,1443
ZENITH	1810

VCR Brand	CODES
A-MARK	0037,0240,0000 0278,0046
ABS	1972
ACCURIAN	0000
ADMIRAL	0060,0048,0039 0047,0104,0209 0065,0479
ADVENTURA	0037,0240,0000
ADYSON	0072
AIKO	0278
AIWA	0037,0000,0124
AKAI	0041,0175
ALBA	0209,0072,0278
ALIENWARE	1972
ALLEGRO	0039
AMERICA ACTION	0278
AMERICAN HIGH	0035,0081
AMSTRAD	0000
ASHA	0240
ASTRA	0035,0081
AUDIOVOX	0000
AVIS	0000,0072
BEAUMARK	0240
BELL & HOWELL	0035,0048,0039 0000,0104,0046 0479
BROKSONIC	0184,0121,0209 0002,0479
CALIX	0037
CANDLE	0037,0038
CANON	0035
CAPEHART	0002
CARRERA	0240
CARVER	0035,0081
CCE	0072,0278
CINERAL	0278
CITIZEN	0035,0037,0240 0000,0209,0278 0479
CLASSIC	0037
COLORTYME	0060,0035,0045 0278
COLT	0000,0072
CRAIG	0037,0047,0240 0072
CRITERION	0000,0072
CROSLEY	0035,0081,0000
CROWN	0072,0278
CURTIS MATHES	0060,0035,0162 0240,0000,0041 0278,0432
CYBERNEX	0240
CYBERPOWER	1972
DAEWOO	0037,0045,0278 0046
DAYTRON	0037,0278
DELL	1972
DENON	0081,0042
DERWENT	0041
DIRECTV	0739
DUAL	0000
DURABRAND	0039,0038
DYNATECH	0240,0000
ELECTROHOME	0060,0037,0240 0000,0043,0209
ELECTROPHONIC	0037
EMERALD	0184,0121
EMEREX	0032
EMERSON	0037,0184,0240 0000,0121,0043 0209,0002,0278 0479,1593
FISHER	0039,0047,0000 0104,0046
FUJI	0035,0033
FUJITSU	0000
FUNAI	0037,0000,0072 0278,1593
GARRARD	0000
GATEWAY	1972
GE	0060,0035,0048 0240,0000,0065
GEMINI	0060
GENEXXA	0037,0000,0278
GO VIDEO	0240,0432,0526 0614
GOLDSTAR	0035,0037,0039 0000,0278,0038
GOODMANS	0037,0081,0000 0072,0278
GRADIENTE	0000
GRANADA	0081,0042
GRUNDIG	0081
HARLEY DAVISON	0000
HARMAN/ KARDON	0081,0038
HARVARD	0072
HARWOOD	0072
HEADQUARTER	0046
HEWLETT PACKARD	1972
HI-Q	0035,0047,0000
HITACHI	0035,0037,0045 0000,0042,0041 0065,0105
HOWARD COMPUTERS	1972
HP	1972
HUGHES NETWORK SYSTEMS	0042,0739
HUMAX	0739,1797,1988
HUSH	1972
HYTEK	0047,0000,0072
IBUYPOWER	1972
INSTANT REPLAY	0035
ITT NOKIA	0240,0041
JANEIL	0240
JENSEN	0067,0041
JVC	0067,0041,1162
KEC	0037,0278
KENWOOD	0067,0041,0038 0046
KLH	0072
KODAK	0035,0037
KTV	0000
LG	0037,0240,0038 1037
LINKSYS	1972
LLOYD'S	0240,0000,0072 0038
LOEWE	0081
LOGIK	0240,0000,0072
LUMATRON	0278
LUXOR	0046
LXI	0037,0000,0042 0067
M ELECTRONIC	0240
MAGNASONIC	0037,0240,0000 0072,0278
MAGNAVOX	0035,0037,0048 0039,0081,0240 0000,0563,0618 1593
MAGNIN	0240
MARANTZ	0035,0081,0038
MARTA	0037
MATSUI	0037,0209
MATSUSHITA	0035,0162,0081 1162
MEDIA CENTER PC	1972
MEI	0035
MEMOREX	0035,0162,0037 0048,0039,0047 0240,0000,0104 0209,0072,0278 0046,0479,1037 1162
METZ	0037
MGA	0060,0240,0043
MGN TECHNOLOGY	0240
MICROSOFT	1972
MIDLAND	0240
MIND	1972
MINOLTA	0042,0105
MITSUBISHI	0060,0048,0047 0000,0042,0067 0043,0041
MOTOROLA	0035,0048
MOVIE WALKER	0072
MTC	0240,0000,0072
MTX	0000
MULTITECH	0039,0000,0072
NAD	0240,0104
NEC	0104,0067,0041 0038
NEW TECH	0072
NIKKO	0037,0278
NIKKODO	0037,0278
NISHI	0240
NIVEUS MEDIA	1972
NOBLEX	0240
NORTHGATE	1972
OLYMPUS	0035,0162,0104
ONKYO	0222
OPTIMUS	1062,0035,0162 0037,0048,0047 0240,0000,0104 0432,1048,1162
ORION	0184,0240,0000 0104,0121,0209 0002,0278,0479
PANAMA	0035
PANASONIC	1062,0035,0162 0000,0225,0614 0616,1162
PENNEY	0035,0162,0037 0047,0081,0240 0000,0042,0067 0038
PENTAX	0042,0065,0105
PHILCO	0035,0081,0000 0209,0479
PHILIPS	0035,0162,0048 0081,0045,0000 0209,0616,0618 0739,1081,1181
PILOT	0037
PIONEER	0162,0081,0042 0067,1337
POLK AUDIO	0081
PORTLAND	0278
PRESIDIAN	1593
PROFITRONIC	0240
PROSCAN	0060
PROTEC	0000,0072
PROTECH	0072
PULSAR	0039,0240,0278
PULSER	0240
QUARTER	0046
QUARTZ	0035,0047,0046
QUASAR	0035,0162,0002 1162
RADIOSHACK	0035,0162,0037 0048,0047,0240 0000,0104,0046 1037,1162
RADIX	0037
RANDEX	0037
RCA	0060,0035,0048 0240,0045,0000 0042,0065,0105 0880
REALISTIC	0035,0162,0037 0048,0047,0240 0000,0104,0121 0278,0046,0065 1162
REPLAY TV	0614,0616
RICAVISION	1972
RUNCO	0039
SAMSUNG	0060,0240,0045 0000,0038,0432 0739
SAMTRON	0240
SANKY	0048,0039
SANSUI	0240,0000,0067 0209,0041,0072 0002,0479
SANYO	0047,0240,0000 0104,0046,0159 0479
SCOTT	0184,0045,0121 0043
SEARS	0060,0035,0162 0037,0048,0039 0047,0033,0045 0000,0042,0104 0067,0043,0209 0041,0072,0046 0065,0105
SHARP	0048,0047,0032 0000,0065,0848
SHINTOM	0039,0240,0000 0072
SHOGUN	0240
SIEMENS	0037,0104
SIGNATURE	0060,0035,0037 0048,0000,0046 0065,0479
SINGER	0037,0240,0072
SONIC BLUE	0614,0616
SONOGRAPHE	0046
SONY	0035,0047,0032 0033,0000,0067 0046,0636,1032 1972
SOUNDMASTER	0000
STACK 9	1972
STS	0042,0105
SV2000	0000,0072
SVA	0000
SYLVANIA	0035,0081,0000 0043,1593
SYMPHONIC	0240,0000,0002 1593
SYSTEMAX	1972
TAGAR SYSTEMS	1972
TANDY	0000,0104
TASHIKO	0037
TATUNG	0048,0081,0000 0067,0041
TEAC	0000,0067,0041
TECHNICS	0035,0162,0037 0000
TEKNIKA	0035,0037,0000
TELECORDER	0240
TELEFUNKEN	0041
TEVION	0479
THOMAS	0000,0002
THOMSON	0060,0041
TISONIC	0278
TIVO	0618,0636,0739 1337
TMK	0240,0000
TNIX	0037
TOCOM	0240
TOSHIBA	0240,0045,0000 0043,0209,0041 1008,1972,1988
TOSONIC	0278
TOTEVISION	0037,0240
TOUCH	1972
TRIX	0037
ULTRA	0045,0278
UNITECH	0240
VECTOR	0045
VECTOR RESEARCH	0184,0038
VEXTRA	0072
VICTOR	0067,0041
VIDEO CONCEPTS	0045
VIDEOMAGIC	0037
VIDEOSONIC	0240,0000,0072
VIEWSONIC	1972
VILLAIN	0000
VOODOO	1972

Remote Control Codes

WARDS	0060,0035,0037 0048,0047,0081 0033,0240,0045 0000,0042,0043 0041,0072,0038 0479,0065,0046
WHITE	0000,0209,0072
WESTINGHOUSE	0278,0479
WORLD	0209,0002,0479
XR-100	0035,0240,0000 0072
YAMAHA	0041,0038
ZENITH	0037,0039,0033 0000,0209,0041 0278,0479,1139
ZT GROUP	1972

PVR Brand	CODES
ABS	1972
ALIENWARE	1972
CYBERPOWER	1972
DELL	1972
DIRECTV	0739
GATEWAY	1972
GO VIDEO	0614
HEWLETT PACKARD	1972
HOWARD COMPUTERS	1972
HP	1972
HUGHES NETWORK SYSTEMS	0739
HUMAX	0739,1797,1988
HUSH	1972
IBUYPOWER	192
LINKSYS	1972
MEDIA CENTER PC	1972
MICROSOFT	1972
MIND	1972
NIVEUS MEDIA	1972
NORTHGATE	1972
PANASONIC	0614,0616
PHILIPS	0618,0739
PIONEER	1337
RCA	0880
REPLAY TV	0614,0616
SAMSUNG	0739
SONIC BLUE	0614,0616
SONY	0636,1972
STACK 9	1972
SYSTEMAX	1972
TAGAR SYSTEMS	1972
TIVO	0618,0636,0739 1337
TOSHIBA	1008,1972,1988
TOUCH	1972
VIEWSONIC	1972
VOODOO	1972
ZT GROUP	1972

DBS/PVR COMBO	CODES
DIRECTV	0739
HUGHES NETWORK SYSTEMS	0739
PHILIPS	0739
SAMSUNG	0739
TIVO	0739

DVD/PVR COMBO	CODES
HUMAX	1797,1988
PIONEER	1337
RCA	0880
SYLVANIA	0000
TIVO	1337
TOSHIBA	1008,1988

DVD Brand	CODES
3D LAB	0503,0539
ACCURIAN	0675,1416
ACOUSTIC SOLUTIONS	0730
ADCOM	1094
AFREEY	0698
AIWA	0641
AKAI	0695,0705,0770 1089
ALBA	0672
ALCO	0790
ALLEGRO	0869
AMPHION	0872
MEDIA WORKS	
AMW	0872
APEX DIGITAL	0533,0672,1020 1056,1061
ARRGO	1023
ASPIRE	1168
DIGITAL AUDIOVOX	0790
AWA	0730
B & K	0655,0662
BBK	1224
BEL CANTO DESIGN	1571
BLUE PARADE	0571
BLUE SKY	0695
BROKSONIC	0695
CALIFORNIA AUDIO LABS	0490
CELESTIAL	1020
CENTREX	0672
CINEA	0831
CINEVISION	0876,0833,0869
CITIZEN	1003,0695,1277 1587,2116
CLAIRTONE	0571
COBY	0778,0852,1077 1086,1107,1165 1177,1351
CRAIG	0831
CREATIVE	0503,0539
CURTIS MATHES	1087
CYBERHOME	0816,0874,1023 1024,1129,1502 1537
CYTRON	0705
DAEWOO	0784,0705,0770 0833,0869,1169 1172,1234,1242
DANSAI	0770
DAYTEK	0872
DECCA	0770
DENON	0490,0634
DENVER	0778
DIGITREX	0672
DISNEY	0675,1270
DI VIDO	0705
DUAL	0675
DURABRAND	1127
DVD2000	0521
EMERSON	1003,2116
ENTERPRISE	0591,0675
ENTIVO	0503,0539
ENZER	0770
FISHER	1919
FUNAI	0675
GATEWAY	1073,1077,1158
GE	0522,0815
GO VIDEO	0573,0744,0715 0741,0783,0833 0869,1044,1075 1099,1144,1158 1304,1730
GOLDSTAR	0741,0869
GOODMANS	0790
GPX	0769
GRADIENTE	0490
GRUNDIG	0539,0705
HARMAN/ KARDON	0582,0702
HELLO KITTY	0831
HITACHI	0573,0664,1919
HITEKER	0672
INSIGNIA	2095
INTEGRA	0571,0627
IRT	0783
JBL	0702
JMB	0695
JSI	1423
JVC	0558,0623,0867 1164
JWIN	1049,1051
KAWASAKI	0790
KENWOOD	0490,0534
KLH	0790,1020,1149
KLOSS	0533
KONKA	0711,0721
KOSS	0769,1061,1423
LASONIC	0627
LECSON	1533
LENOXX	1127
LG	0591,0741,0869
LITEON	1058,1158,1416 1440
LOEWE	0741
LOGIX	0783
MAGNASONIC	0675
MAGNAVOX	0503,0539,0646 0675,1354,1506 1159
MALATA	0503,0539,0646
MARANTZ	0675,1354,1506
MCINTOSH	1533,1273
MEMOREX	0695,0831,1270 2213
MICROSOFT	0522,2083
MINATO	0752
MITSUBISHI	1521,0521
MUSTEK	0730
MYRAD	0894
NAD	0741
NAIKO	0770
NEC	0785,0869
NEXXTECH	1402
NINTAUS	1051
NORCENT	1003,0872,1107 1265
ONKYO	0503,0627,1769
OPPO	0575,1224,1525 2185
OPTIMUS	0571
PALSONIC	0672,0852
PANASONIC	0503,0490,0571 0703,1641,1762
PHILCO	0675
PHILIPS	0503,0539,0646 0675,1267,1340 1354,2056,2084
PIANODISC	1024
PIONEER	0525,0571,0142 0631,1571
POLAROID	1020,1061,1086
POLK AUDIO	0539
PORTLAND	0770
PRESIDIAN	0675
PRIMA	2126,2127
PROCEED	0672
PROSCAN	0522
PROVISION	0778
RADIONETTE	0741
RADIOSHACK	0571
RCA	0522,0571,0790 0822,1769
REALISTIC	0571
REOC	0752
RIO	0869
RJTECH	1360
ROTEL	0623,1178
SAMPO	0698,0752
SAMSUNG	0490,0573,0744 0199,0820,1044 1075,2069
SANSUI	0695
SANYO	0675,0695,0873 1919
SCHNEIDER	0783
SCHWAIGER	0752
SENSORY SCIENCE	1158
SHARP	0630,0675,0752 1256
SHERWOOD	0633,0770,1043 1077
SHINSONIC	0533
SLIM ART	0784
SM ELECTRONIC	0730
SONIC BLUE	0573,0715,0783 0869,1099
SONY	0533,1533,0864 1033,1070,1431 1516,1536
SYLVANIA	0675
SYMPHONIC	0675
TAG MCLAREN	0894
TATUNG	0770
TEAC	0571,0790
TECHNICS	0490,0703
TECHNIKA	0770
TECHSONIC	0730
THETA DIGITAL	0571
THOMSON	0522
TIVO	1503
TOSHIBA	0503,0573,0539 0695,1154,1503 1608,1769
TREDEX	0800,0803
UNIMAX	0770
UNITED	0730
UNIVERSUM	0591
URBAN CONCEPTS	0503,0539
V	1064,1226
VENTURER	0790
VIZIO	1064,1226
VOCOPRO	1360
XBOX	0522,2083
YAMAHA	0490,0539,0545 0497
YAMAKAWA	0872
ZENITH	0503,0591,0741 0869
ZEUS	0784
ZOECE	1265

BLU-RAY DISC	CODES
LG	0741
PANASONIC	1641
PHILIPS	2084
PIONEER	0142
SAMSUNG	0199
SONY	1516

DVD/PVR COMBO	CODES
GO VIDEO	1730
PANASONIC	0490
PHILIPS	1340
PIONEER	0631
RCA	0522
SHARP	1256
SONY	1033,1070,1536
SYLVANIA	0675
TOSHIBA	1503

HD-DVD	CODES
LG	0741
MICROSOFT	2083
ONKYO	1769
RCA	1769
TOSHIBA	1769
XBOX	2083

AUDIO RECEIVER Brand	CODES
AIWA	1405,0189,0121 1243,1388,1641
ALCO	1390
ANAM	1609
APEX DIGITAL	1774
ARCAM	1189
AUDIOTRONIC	1189
AUDIOVOX	1390
B & K	0820,0840
BOSE	0639,1253,1933
BRIX	1602
CAIRN	0189
CARVER	1189,0189,0121
CURTIS MATHES	0014
DELPHI	1414
DENON	1360,0121,1142 1306
ELECTROHOME	2026
GRUNDIG	0189
HARMAN/ KARDON	0189,0891,1304 1306
HITACHI	0228
INSIGNIA	1030,2169
INTEGRA	0842,1298,1320 1805
JBL	1306
JVC	1058,1374,1495 1811
KAWASAKI	1390
KENWOOD	1570,1569
KLH	1390,1428
KOSS	1497
LG	2197
LINN	0189
LIQUID VIDEO	1497
MAGNAVOX	1189,1269,0189 1266,1514
MARANTZ	1189,1269,0189 0891
MICROMEGA	1189,0189
MITSUBISHI	1393
MYRAD	1189
NAKAMICHI	0097,1555
ONKYO	0842,1298,1320 1805
OPTIMUS	1023,0014,0121 0670
ORITRON	1497
PANASONIC	1308,1518,1288 1316,1548,1633 1763,1764,2967
PHILIPS	1189,1269,0189 0891,1266
PIONEER	1023,0014,0630 1384,1935
POLK AUDIO	0189,1414
RADIO SHACK	1609
RCA	1023,1609,1390
REALISTIC	1609,0121
REVOX	0189
SAMSUNG	1304,1500,1868
SANGEAN	2165
SANSUI	1189,0189
SHERWOOD	1913
SIRIUS	1602,1811
SONY	1058,1441,1258 1759,1622,1406 1558,1658,1758 1858
SOUNDESIGN	0670
STEREOPHONICS	1023
TEAC	1390
TECHNICS	1308,1518,1633
THORENS	1189
TOSHIBA	0842,1788
VENTURER	1390
WARDS	0189,0014
XM	1406,1414
YAMAHA	1023,0176,1176 1276,1331,1815 2061

AUDIO AMPLIFIER Brand	CODES
ADCOM	0577,1100
BOSE	0674
CARVER	0892
CARY AUDIO DESIGN	1879
CLASSE	1461
FLEXTRONICS	1879
HALCRO	1934
HARMAN/ KARDON	0892
KRELL	1837
LEFT COAST	0892
LEXICON	1145,1802
MARANTZ	0892
MARK LEVINSON	1483
PARASOUND	1934
PHILIPS	0892
POLK AUDIO	0892
PRIMARE	1395
YAMAHA	0354

TELEVISION	CODES
HITACHI	1445,1643,2143 2243

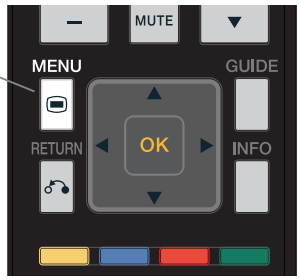
SETUP OPERATION

How to Use the On-Screen Display (OSD) System

You can use the On-Screen Display system to access the various kinds of the features and functions.

• Basic Operation

Menu button



1. Press the MENU button on the remote control or the **Menu** button on the control panel of the unit. The **Main Menu** is displayed on the screen as shown on the right.

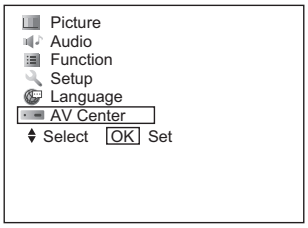
2. To select the item, press the ▲▼ button.
The selected item will be highlighted in Yellow.

3. Press the OK button to set your selection.
The selected menu page will be displayed on the screen.

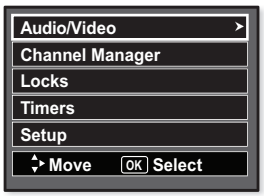
4. Use the ▲▼ button to choose the item on the menu page.
Press the OK button to set your selection.

5. Use the ◄► button to adjust the item values or choose options.
Press the OK button to set your selection.

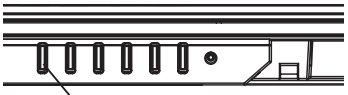
6. To exit from the menu, press the MENU or the RETURN button.



<Main Menu>



<A/V Center Menu>



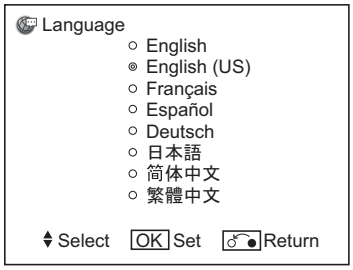
UT Monitor
Menu button

NOTE

- The OSD menu screen will be closed automatically when no operation has been made for about one minute.
- If the item on the menu is shown in gray, it means that it cannot be selected or adjusted.
- In order to appear A/V Center menu on Main Menu, A/V Center Control need to be activated on Function/HDMI Control menu(default condition).

Select Language

Select the language from the list so that the OSD menu can be displayed in the selected language.
The default setting is English (US).



• How to set Language

1. Enter the **"Language"** menu from the Main Menu.

2. Select your preferred language from the list using the ▲▼ button.
The selected item will be highlighted in Yellow.

3. Press the OK button to set your selection.
The mark on the left turns into a double circle when the selection is fixed.

4. Press the MENU button to exit from the entire OSD menu.

NOTE

- When the Language is set on Main Menu the A/V Center menu automatically set to that language, please note that English, Spanish and French are supported by A/V Center.

SETUP OPERATION (continued)

Main Menu List

Menu				Page
Picture (A/V Center/Monitor Side Composite)	Picture Mode		Select between 3 picture modes according to the lighting condition.	35
	Contrast		Adjust to increase or decrease the picture contrast.	35
	Brightness		Adjust to brighten or darken the picture.	35
	Color		Adjust to increase or decrease the color density.	35
	Sharpness		Adjust to sharpen or soften the picture.	35
	Tint		Adjust to obtain natural skin color.	35
	Color Temperature		Select between 3 settings according to your preferred color tone.	35
	Back Light		Adjust to increase or decrease the brightness of back light on LCD panel.	35
	Reset		Reset each item on the menu screen to the factory setting.	35
	Contrast Mode		Select between 3 contrast modes to suit your preference.	36
	3D Color Management		Adjust the suitable tint, color density, and brightness on image.	36
	Black Enhancement		Adjust the black level compensation.	36
	DNR		Reduce noise for picture signal.	37
	MPEG NR		Reduce mosquito noise in the picture.	37
	Film Mode		Adjust to make the moving image smooth.	38
	3D Comb Filter		Reduce the color blurring to reproduce purer color.	36
	Reset		Reset each item on the menu screen to the factory setting.	36
	Color Temp. Adjust		Set specific adjustment in each of 3 color temperature modes.	36
	Motion Sharpness		Set to On to reproduce clearly the image with fast movement	36
Picture(RGB)	Contrast		Adjust to increase or decrease the picture contast.	40
	Brightness		Adjust to brighten or darken the picture.	40
	Color		Adjust to increase or decrease the color density.	40
	Tint		Adjust to obtain natural skin color.	40
	Color Temperature		Select between 3 settings according to your preferred color tone.	40
	Color Temp. Adjust		Set specific adjustment in each of 3 color temperature modes.	40
	Back Light		Adjust to increase or decrease the brightness of back light on LCD panel.	40
	Reset		Reset each item on the menu screen to the factory setting.	40
Audio	Treble		Adjust to increase or decrease the level of treble. (-15~+15)	-
	Bass		Adjust to increase or decrease the level of bass. (-15~+15)	-
	Balance		Adjust the balance of sound from the bottom right and left speakers. (-10~+10)	-
	Surround		Select surround-sound. (Off/On)	-
	Bass Boost		Enhance bass sounds. (Off/On)	-
	Clear Voice		Select clearer and more realistic sounds. (Off/On)	-
	Perfect Volume		Adjust sound volume appropriately. (Off/On)	-
	Speakers		Select if using internal speakers. (Off/On)	-
	Reset		Reset each item on the menu screen to the factory setting.	-
Function	System		This function is not available.	-
	HDMI Control	Auto Input Change	In response to the connected equipment such as DVD(in case the A/V Center is not connected) through HDMI cable, the monitor is automatically turned On and switched to HDMI input.	-
		System Standby	In response to the monitor, the connected equipment such as DVD (in case A/V Center is not connected) through HDMI cable is automatically turned Off (standby mode).	-
		AV Center Control	Selecting On will activate AV Center OSD interface.	33
Setup (A/V Center/Monitor Side Composite)	Video Power Save		Save power consumption when no signal can be input in HDMI/Composite input mode.	44
	RGB Input		Select the effective signal.	39
	Color System		This function is not available.	-
Setup(RGB)	Auto Adjust		Adjust Horizontal Position, Vertical Position, Horizontal Clock, and Clock Phase automatically.	41
	Horizontal Position		Adjust the display position horizontally.	41
	Vertical Position		Adjust the display position vertically.	41
	Horizontal Clock		Minimize the vertical stripes on the screen.	41
	Clock Phase		Minimize the blurring of the letters and stripes on horizontal row.	41
	Reset		Reset each item on the menu screen to the factory setting.	41
	Frequency Display		Set On for PC signal frequency information to be displayed on the Input Signal Screen Display.	41
	WXGA Mode		Select the resolution when WXGA signal is received.	41
	RGB Input		Select the effective signal.	41
Language				33
AV Center(if activated)	-		For A/V Center OSD description please refer to A/V Center Instruction Book(Included)	

NOTE • The picture settings can be stored for each of inputs except “Picture Mode”.

SETUP OPERATION (continued)

Watching Images from A/V Center/Monitor Composite Input

1. Connect to external equipment. (See 20 and 23 for details.)

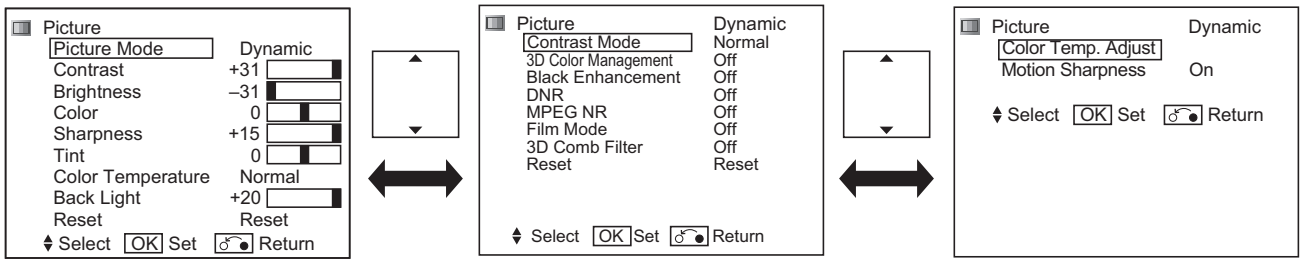
2. Press the HDMI button to switch to A/V Center mode.

Press the RGB button to switch to Composite mode(Monitor side).

3. Press the MENU button.

Setting Picture Adjustment

You can adjust the display condition such as color settings.
Select **"Picture"** from Menu list.



Selected Items		Setup hint
Picture Mode	Dynamic	You can make the best selection from 3 modes depending on the lighting condition and intended use. Dynamic: Suitable for brighter conditions. Natural : Suitable for normal lighting conditions. Cinema : Suitable for watching movies.
	Natural	
	Cinema	
Contrast	-31~+31 (+32~+40)	This adjusts the contrast to meet the surrounding brightness by using the ◄► button. • The maximum value is extended up to [+40] by pressing the ► button for more than 2 seconds at [+31]. The value between [+32] ~ [+40] appears in magenta. This is the special feature for dark images, so it is recommended to set the value less than [+31] under normal conditions.
Brightness	-31~+31	Adjust brightness according to personal preference by using the ◄► button.
Color	-31~+31	Adjust color according to personal preference by using the ◄► button.
Sharpness	-15~+15	Preferred sharpness can be adjusted by pressing the ◄ button for softer image or the ► button for sharper image.
Tint	-31~+31	Pressing the ◄ button enhances red and weakens green, while pressing the ► button weakens red and enhances green. The setup hint is to adjust for realistic skin color.
Color Temperature	Cool	You can select from 3 settings depending on the color condition using the ◄► button.
	Normal	
	Warm	
Back Light	-20~+20	Adjust the brightness of the Back Light for maximum visibility.
Reset		Each item on this menu screen can be restored to the factory settings by pressing the OK button.

Watching Images from A/V Center/Monitor Composite Input

Setting Picture Adjustment (continued)

Selected Items			Setup hint
Contrast Mode	Dynamic		It allows you to choose from 3 modes. Dynamic: Sharpen the gradation to improve the contrast feeling. Normal : Improve the contrast feeling to reproduce a faithful gradation. Linear : Reproduce as faithful gradation as possible.
	Normal		
	Linear		
3D Color Management	Off		On : It automatically adjusts the suitable tint, color density, and brightness on images. Off : Set it off if the image does not look natural.
	On		
Black Enhancement	Off		Adjusts the black level compensation.
	Low		
	Middle		
	High		
3D Comb Filter	Off		This function is available only if D-sub 15 pin - composite cable is used on Monitor. This reduces the dot and color blurring in minute scales so that it can reproduce purer color. • This is available only when receiving NTSC3.58 composite signal.
	Low		
	Middle		
	High		
Reset			Each item on this menu screen can be restored to the factory settings by pressing the OK button.
Color Temp. Adjust	On	Amplitude	On: When you want to set specific adjustments in each of the 3 Color Temperature modes. You can adjust on the Amplitude and Cut Off. The settings reflect on the Color Temperature. Amplitude: Subdue the colors (Red/Green/Blue) on the brighter parts (-63~0). Cut Off : Subdue the colors (Red/Green/Blue) on the darker parts (-31~+31). Reset (Available when On): Select to restore amplitude and Cut Off adjustments to default settings by pressing the OK button. Off: Remains as default setting.
		Red	
		Green	
		Blue	
		Cut Off	
		Red	
		Green	
		Blue	
		Reset	
	Off		
Motion Sharpness	Off		On : Set to On to reproduce clearly the image with fast movement Off : Set it off if the image does not look natural or flicker appears.
	On		

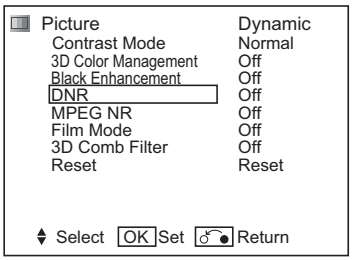
SETUP OPERATION (continued)

Watching Images from A/V Center/Monitor Composite Input

Reducing Noise

You can reduce the unwanted picture noise.

Select **"Picture"** from the Menu list.

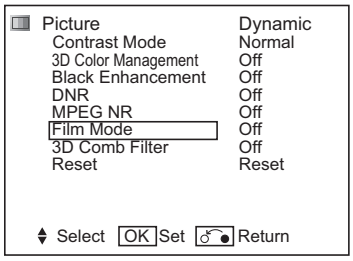


Selected Items		Setup hint
DNR	Off	This is a noise reduction system for picture signals.
	Low	
	Middle	
	High	
MPEG NR	Off	This is a noise reduction system for MPEG picture signals. (e.g. against mosquito noise and block noise.)
	Low	
	High	

Watching Images from A/V Center/Monitor Composite Input

Making the Moving Image Smooth

Using this function helps to make the moving image smooth.
Select **"Picture"** from the Menu list.



Selected Items		Setup hint
Film Mode	Off	On: Automatically identifies if it is a movie and faithfully reproduces the original film images. Off: Set to Off if the image does not look natural. This is available only when receiving NTSC, 480i or 1080i input signals.
	On	

NOTE About "Film Mode"

• The image might not look natural depending on the image contents.

Phenomena such as

① When switched to the subtitles of a film or images, the image displays fine horizontal streak lines.
② When switched to scenes such as commercial and animation, the image displays fine horizontal streak lines.
③ When displaying a ticker or subtitle, the text on the image becomes rough (aliasing).
④ When watching the image in Composite mode, which is connected to any external equipment, the OSD of external equipment displays fine horizontal streak lines.

These phenomena occur due to the method of converting the image. Please note that this is not a malfunction. In the event that this is disturbing, please set to Off.
In addition, the effect of this menu might vary depending on the aspect setting (See 42).

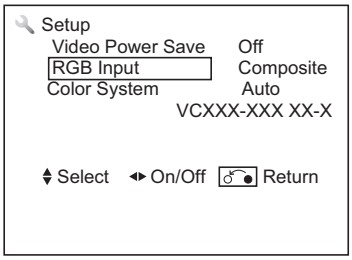
Also, this might be ineffective depending on the scene of the image.

SETUP OPERATION (continued)

Watching Images from A/V Center/Monitor Composite Input

Advanced Setting

Select **"Setup"** from the Menu list.



Selected Items		Setup hint
Video Power Save	Off	See 44 for details.
	On	
RGB Input	RGB	Select the effective signal.
	Composite	
Color System		This function is not available.

NOTE Watching through the optional D-sub 15 pin - composite cable

Your UT Monitor is capable to receive composite video, you can watch images from your external equipments through the optional D-sub 15 pin - composite cable, but A/V Center provides more practical terminals.

1. Connect to your external equipment with the optional D-sub 15 pin - composite cable. (See 23.)

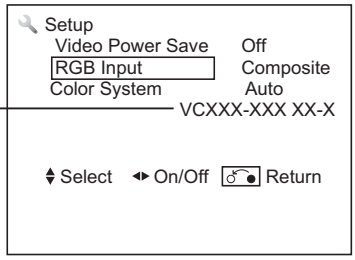
2. Switch to RGB input by pressing the RGB button.

3. Press the MENU button and select **"Setup"** from the menu list.

4. Then you can select **"Composite"** in **"RGB Input"**.

NOTE Checking Software Version

• The Software Version is displayed on Setup(A/V Center/Monitor Composite) menu.



SETUP OPERATION (continued)

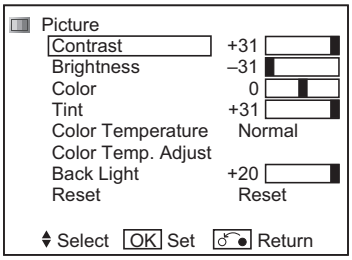
Viewing Images from a PC

1. Connect to the PC. (See 22 for details of connection to PCs.)

2. Switch to RGB input by pressing the RGB button.

3. If necessary select "**RGB**" option under "**Setup/RGB Input**" menu.

4. Press the MENU button.



Setting Picture Adjustment

You can adjust the display condition such as position adjustment and color settings.

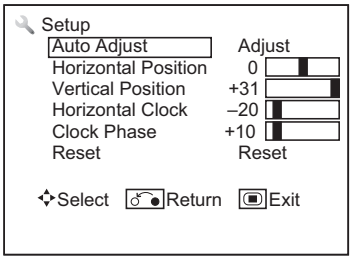
① **Picture Menu**
Select **"Picture"** from the Menu list.

Selected Items			Setup hint
Contrast	-31~+31 (+32~+40)		This adjusts the contrast to meet the surrounding brightness using the ◄► button. • The maximum value is extended up to [+40] by pressing the ► button for more than 2 seconds at [+31]. Values between [+32] ~ [+40] appear in magenta. This is the special feature for dark images, so it is recommended to set the value less than [+31] under normal conditions.
Brightness	-31~+31		Adjust the brightness according to personal preference using the ◄► button.
Color	-31~+31		Adjust the color according to personal preference using the ◄► button.
Tint	-31~+31		Pressing the ◄ button enhances red and weakens green, while pressing the ► button weakens red and enhances green. These adjustments are for realistic skin color.
Color Temperature	Cool		You can select from 3 settings with the ◄► button.
	Normal		
	Warm		
Color Temp. Adjust	On	Amplitude	On: When you want to set specific adjustments in each of the 3 color temperature modes. You can adjust the Amplitude and Cut Off. The settings reflect on the Color Temperature. Amplitude: Subdues the colors (Red, Green, Blue) on the brighter parts (-63~0). Cut Off : Subdues the colors (Red, Green, Blue) on the darker parts (-31~+31). Reset (Available when On): Select to restore amplitude and Cut Off adjustments to default settings by pressing the OK button. Off: Remains as default setting.
		Red	
		Green	
		Blue	
		Cut Off	
		Red	
		Green	
		Blue	
		Reset	
	Off		
Back Light	-20~+20		Adjusts the brightness of Back Light for maximum visibility.
Reset			Each item in the Picture Menu can be restored to the factory setting by pressing the OK button.

SETUP OPERATION (continued)

Viewing Images from a PC (continued)

Setting Picture Adjustment (continued)

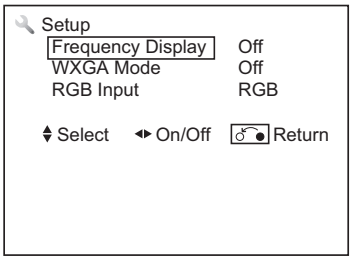


② **Setup Menu**
Select **"Setup"** from the Menu list.

Selected Items		Setup hint
Auto Adjust		Adjusts Horizontal Position, Vertical Position, Horizontal Clock, and Clock Phase automatically. • Select "**Adjust**" then press the OK button to start automatic adjustment as necessary. The message "Auto Adjusting" is displayed. • The image might not be adjusted to its optimum condition depending on the types of signals. In that case, adjust each item manually.
Horizontal Position	-63~+63	Adjusts the display position horizontally. • When the value exceeds a possible range, it will be displayed in magenta.
Vertical Position	-31~+31	Adjusts the display position vertically. • When the value exceeds a possible range, it will be displayed in magenta.
Horizontal Clock	-31~+31	Minimizes vertical stripes on the screen.
Clock Phase	0~+63	Minimizes the blurring of letters and stripes on horizontal row. • Be sure to adjust Horizontal Clock before adjusting Clock Phase. • When the value exceeds a possible range, it will be displayed in magenta.
Reset		Each item in Setup Menu can be restored to the factory setting by pressing the OK button.

Advanced Setting

Select **"Setup"** from the Menu list and skip to the second page.



Selected Items		Setup hint
Frequency Display	Off	Set to On for PC signal frequency information to be displayed on the Input Signal Screen Display.
	On	
WXGA Mode	Off	Selects the resolution when a WXGA signal is received.
	1280X768	
	1360X768	
RGB Input	RGB	Selects the effective signal. Refer to 26 and 40 for details.
	Composite	

FUNCTIONS

Aspect Switching

Each time the ASPECT button of the remote control is pressed, the screen display aspect is switched in sequence, and the status will be displayed at the bottom of the screen.

Aspect button

A/V Center/Monitor Composite Signal Input

- **Display Aspect**

Watching Standard Definition Pictures 4:3(Analog/Digital TV, Composite, Component, HDMI*)

4:3 → 16:9 → Zoom 1 → Zoom 2 → Expanded → 4:3

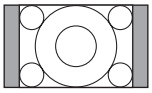
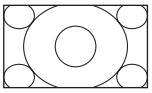
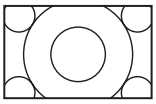
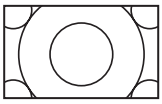
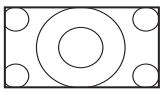
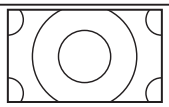
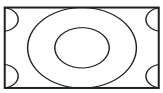
Watching Standard Definition Pictures 16:9(Digital TV, Component, HDMI*)

16:9 → Zoom 1 → Expanded → 16:9

Watching High Definition Pictures (720p, 1080i, 1080p)(Digital TV, Component, HDMI*)

16:9 → Zoom 1 → Expanded → Real → 16:9

You can display the image at its optimum condition by selecting display aspect depending on the current output image as shown below.

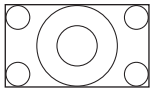
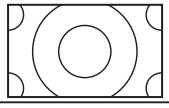
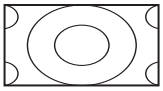
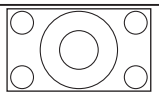
Input Signal	Display Screen	Display Aspect	To display suitable screen as follows.
When Watching Standard Definition Pictures 4:3:			
(4:3 Signal)		4:3	Plays a 4:3 image on screen faithfully. Blanking occurs on both sides.
		16:9	Plays a 4:3 image which enlarges horizontal and vertical size of the middle in equal scales, and displays both sides appearing much wider.
		Zoom 1	Use these aspect modes to zoom in on conventional (4:3) sources.
		Zoom 2	Use these aspect modes to zoom in on conventional (4:3) sources further more than Zoom 1.
		Expanded	Use this aspect mode to display conventional (4:3) sources by linearly increasing image expansion from the center towards the edges of the display area in order to fill it. *HDMI doesn't support Expanded
When Watching Standard Definition Pictures 16:9:			
(16:9 Signal)		16:9	Plays a 16:9 image faithfully showing 95% of the size.
		Zoom 1	Use this aspect to Zoom-in once while in 16:9 aspect.
		Expanded	Use this aspect mode to display (16:9) sources by linearly increasing image expansion from the center towards the edges of the display area. *HDMI doesn't support Expanded

FUNCTIONS (continued)

Aspect Switching (continued)

A/V Center/Monitor Composite Signal Input (continued)

- **Display Aspect(continued)**

Input Signal	Display Screen	Display Aspect	To display suitable screen as follows.
When Watching High Definition Pictures 16:9:			
(16:9 Signal)		16:9	Plays a 16:9 image faithfully showing 95% of the size.
		Zoom 1	Use this aspect to Zoom-in once while in 16:9 aspect.
		Expanded	Use this aspect mode to display (16:9) sources by linearly increasing image expansion from the center towards the edges of the display area. *HDMI doesn't support Expanded
		Real	Plays a 16:9 image faithfully showing 100% of the size. *In some cases, the screen display has unnecessary blanking or noise at the edges.

⚠CAUTION

Using a wide-screen monitor

- The monitor has a screen mode selection feature. If an incompatible screen mode is selected to play certain software, such as a TV program, the image would appear different from the original. Take this into consideration when making screen mode choices.
- Use of the wide feature displaying enlarged pictures in coffee shops, hotel and other establishments for commercial or public viewing purposes could infringe on the copyright holder's rights, which are protected by Copyright Law.
- When a normal 4:3 image (not wide screen) is displayed over the entire screen in the Panoramic mode, the peripheral image may disappear partly and/or appear distorted in some cases. Use 4:3 mode to view the image reflecting the original intention.

RGB Signal Input

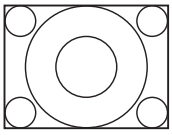
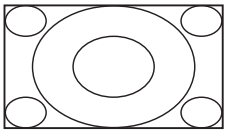
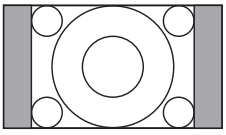
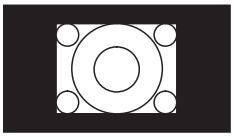
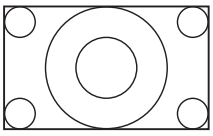
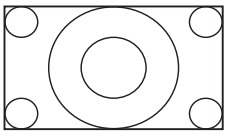
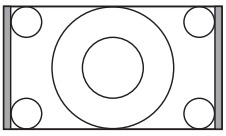
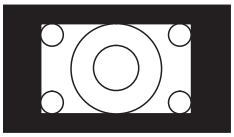
- **Display Aspect**

You can select a suitable aspect depending on the resolution.

Normal → Full → Real*

* Real mode gives the image with same shapes as that of a computer monitor (neither compression nor stretching).This mode is not available if the input signal is 1280 x 1024 (SXGA).

Display Area Selection Diagram

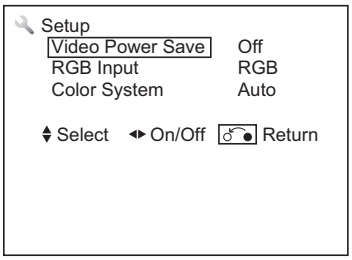
Resolution	Input signal	Full display	Circular display	
Display		Full	Normal	Real*
640 X 480 (VGA) 800 X 600 (SVGA) 1024 X 768 (XGA) 1280 X 1024 (SXGA)				
640 X 400 (VGA) 1280 X 768 (WXGA) 1360 X 768 (WXGA)				

FUNCTIONS (continued)

Power Save Mode

When Monitor Composite Input is Selected

You are provided the function to save power consumption when no signal is detected in the Monitor Composite input. Set to On in **"Video Power Save"** from the Setup Menu, which leads to the power save mode.



MENU

1. Press the [MENU] button when in Monitor Composite mode.

2. Select the **"Setup"** menu and press the [OK] button.

3. Select **"Video Power Save"**.

Video Power Save	Off
	On

When no signal is detected		**When signal is input during On in "Video Power Save"**
Condition	Indicating Lamp	
Power Save	Orange	Turns On automatically.

When RGB Input is Selected

When the unit is connected to a VESA DPMS computer, the Power Save mode (Operation mode : Off) can be set to be activated automatically when the computer is not being used, in order to reduce the power consumption of the unit.

RGB sync signal	**Horizontal**	Yes	No	Yes	No
	Vertical	Yes	Yes	No	No
PC signal		Active (normal display)	Blank (no display)		
Operation mode		On	Off		
Indicating lamp		Lights green	Lights orange		

• To return to operating status, operate the personal computer, or press either the **Input Select** button on the control panel or the [HDMI] or [RGB] button on the remote control.

TROUBLESHOOTING

About LCD Display Technology

The following are common phenomena occurring when viewing LCD display devices due to its characteristics. Please note that these are not malfunctions.

• Defective Spots on Panel

The LCD panel is manufactured with high-precision technology. However, there might be some spots that are not illuminated, or are brighter than others, or are in different colors, etc.

• Surface on Panel

The LCD panel displays images by the fluorescent lamps internally. This can raise the temperature of the display surface.
In addition, do not allow any heavy impact to the front of the panel because the LCD panel is made of high precision glass.

• Use Under Low Temperature Conditions

Because of the structural characteristics of the LCD panel, the response speed of the LCD panel becomes slower when the ambient temperature becomes too low. In some cases, this may result in a residual image.
The residual image will disappear of its own accord as the temperature rises again to a normal level.

Before calling a service technician, check the following tables first. If the problem cannot be solved with the suggested procedures, contact **800-HITACHI**. For your safety, NEVER try to repair the product yourself.

When the Following Messages Appear on the Screen

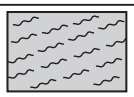
Message	Condition / Action	Page
Power Save	This indicates it is in Power Save mode. (in Monitor Composite/RGB mode) This message appears 5 seconds before Power Save mode starts. The indicating lamp lights in orange.	44
No Sync. Signal	The unit cannot detect any signals from any input terminals. • Check if the cable is connected correctly and firmly. • Check if the power of any external equipment is ON. • Check if the input selection matches the connection terminal. • Check if the PC is in Power Save mode or not.	20 ~ 23 44
Invalid Scan Freq.	The unit receives unsupported signals. • Check if the cable is connected correctly and firmly. • Check if the input signal is compatible with the specification of the monitor.	48, 50
Not Available	This shows when the selected operation is not available.	
Weak Signal or Channel not available.	This shows the selected channel is not available. • Check the signal meter on A/V Center OSD.	
Auto Adjusting	This indicates that it is in the process of auto adjusting. (in RGB mode)	41

Symptom and Checklist

Symptoms		Checklist	Page
• No picture - no sound		• Check if the power of the A/V Center and UT Monitor or external equipment is ON. • Check the connection of the power cord and/or other cables. • Check if the correct mode is selected. • Check if the UT Monitor is in “Standby mode” or “Power Save mode”. • Adjust the values in “Picture” and “Audio” on UT Monitor menu".	20 ~ 24 26, 46
• Multiple images-normal sound		• Check the connections to external equipment.	20 ~ 23

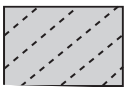
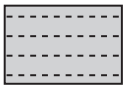
TROUBLESHOOTING (continued)

Symptom and Checklist (continued)

Symptoms	Checklist	Page
• Intermittent interference 	• Check if the source of interference is shielded correctly. • Move these kinds of electrical devices away from the unit.	
• Normal picture, but no sound	• Check the volume level. • Check audio settings on HDMI source must be set to PCM. • Check if the MUTE button has been pressed or not. • Check the connections to external equipment. • Check if input signal is HDMI or DVI by pressing INFO button, remember DVI must be connected on HDMI 2 and audio must be input by separate.	25
• No picture - normal sound	• Check the value level of “Brightness” and “Contrast” in “Picture Menu”.	35, 40
• The remote control does not work.	• Check if the batteries are installed correctly. • The batteries might be exhausted. Replace them with new ones. • Remove all obstructions from in front of the sensor window on the unit.	18, 19
• Picture Frezze and/or the buttons on both the remote control and control panel do not work.	• Unplug and connect after 5 minutes the power cord or turn Main switch Off and On after 5 minutes both A/V Center and UT Monitor. • Hold down the Reset button on the UT Monitor control panel for over a second.	16
• Normal picture but no color-normal sound	• Check the connections to external equipment.	20 ~ 23
• No picture UT Monitor Indicating lamp → Off	• Check if the power cord is plugged into the socket securely for UT Monitor. • Check if the main switch is on for UT Monitor.	15, 24
• No picture UT Indicating lamp → Orange It means that UT monitor is in “Power Save mode”.	• Check if the A/V Center to UT Monitor cable is connected correctly and securely. • Check if the power of the A/V Center is ON. • Refer to “When the Following Messages Appears on the Screen”.	45, 13
• No picture UT Monitor indicating lamp → Green	• Check if the signal cable is connected correctly and securely. • Check if the A/V Center to UT Monitor cable is connected correctly and securely.	13
• The top of the unit and surface of the panel heat up.	• This may occur if you use the unit for a long time. Turn off the main power to the unit for a while. Please note that this is not a malfunction.	
• Some screen display aspects are not possible.	• Check the signal status by pressing the INFO button on the remote control. The available screen display aspect is different depending on the current signal status.	26 42, 43
• Image cannot be displayed from HDMI input.	• Check if the cables are connected correctly. • Turn off A/V Center and HDMI source, then turn A/V Center on first then HDMI source. • Check the output format of the equipment. • (Please refer to “CONNECTION” and “Recommended Signal List”.)	48 ~ 50
• Turns Off by itself	• Check or ensure Timer settings are not activated.	
• Picture may “block” or freeze when watching a digital channel.	• Check signal strength and noise levels under ”Signal Meter”	
• No sound from TV Optical Out when using HDMI devices	• Change Digital Output selection.• • As an option, use audio optical output from HDMI source device directly to separate Audio Amplifier	
• Some digital programming looks blurry during fast changing scenes..	• This is normal and its due regular digital compression scheme, please note this is not a malfunction.	

TROUBLESHOOTING (continued)

Symptom and Checklist (continued)

Symptoms		Checklist	Page
• The image on the screen is moving in an oblique direction. (RGB input mode only)		• Adjust “Horizontal Clock” and “Clock Phase”.	41
• The coarse vertical stripes can be seen in full-display mode. (RGB input mode only)		• Adjust “Horizontal Clock”.	41
• Part of the image is missing. (RGB input mode only)		• Try “Auto Adjust”.	41
• The horizontal stripes are moving vertically with flickering screen. (RGB input mode only)		• Check the signal status of the PC by pressing the INFO button on the remote control to check if the input signal of the displayed image is compatible with the specification of the unit.	26, 48, 50
• When the characters are displayed on the whole screen, the vertical stripes appear and some of the characters are blurred. (RGB input mode only)		• Try “Auto Adjust”. • If the display condition is not improved with “Auto Adjust”, adjust “Horizontal Clock”.	41
• When the letter string is displayed in full-screen, all of the characters on the screen are blurred. (RGB input mode only)		• Try “Auto Adjust”. • If the condition is not improved with “Auto Adjust”, adjust “Clock Phase” until you get the clearest image.	41
• When small patterns are displayed on the screen, the entire screen is flickering. (RGB input mode only)		• Try “Auto Adjust”. • If the condition is not improved with “Auto Adjust”, adjust “Clock Phase” until you get a flicker-free display.	41
• Image cannot be displayed in the correct position. (RGB input mode only)		• Press the INFO button to check if the input signal of the displayed image is compatible with the specification of the unit.	26, 48, 50

PRODUCT SPECIFICATIONS

SPECIFICATION(Monitor Only, for A/V Center refer to A/V Center IB, included)		
Panel	Display dimensions	27 5/8 (H) x 15 19/32 (V) in, Approx. 32 inches measured diagonally. 701 (H) x 396 (V) mm, Approx. 801 mm measured diagonally.
	Resolution	1366 (H) x 768 (V) pixels 120 Hz
	Pixel Pitch	0.510(H) x 0.510(V) mm.
Net dimensions		including Stand: 814(W) x 587(H) x 249(D) mm / 32 1/32(W) x 23 1/8(H) x 9 3/16(D) in excluding Stand: 814(W) x 538(H) x 39(D) mm / 32 1/32(W) x 21 3/16(H) x 1 9/16(D) in
Net weight		including Stand: 13.5 kg / 29.7 lb excluding Stand: 10.9 kg / 24 lb
Ambient conditions	Temperature	Operating : 5°C to 35°C, Storage : 0°C to 40°C
	Relative humidity	Operating : 20% to 80%, Storage : 20% to 90% (non-condensing)
Power supply		AC120V, 60Hz
Power consumption/ at standby		143 W, 1.3 A/< 0.5 W
Audio output		speaker 6W + 6W
FCC Class		B for Consumer Use
(HDMI input)		
Input terminals		HDMI : HDMI input terminal Audio input terminal (Mini-pin)*
Input signals		HDMI: VGA/60, 480i, 480p, 720p/60, 1080i/60, 1080p/60, 1080p/24
(RGB/Composite input)		
Input terminals		Analog RGB input terminal (D-sub 15 pin) Audio input terminal (Mini-pin)*
Input signals		0.7 Vp-p, analog RGB (Recommended Signal) Composite video: NTSC3.58
Sync signals		H/V separate, TTL level [2KΩ]

• The unit takes at least 30 minutes to attain the status of optimal picture quality.

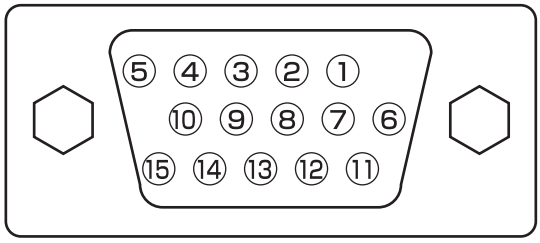
* This analog audio input terminal can be used for PC (RGB) or Monitor Composite.

PRODUCT SPECIFICATIONS (continued)

Signal Input

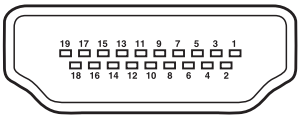
RGB terminal (D-sub 15 pin connector)

Pin	Input signal
1	R
2	G/Composite
3	B
4	No connection
5	GND
6	R.GND
7	G.GND/Composite
8	B.GND
9	+5V
10	GND
11	No connection
12	[SDA]
13	H.sync
14	V.sync.
15	[SCL]



HDMI connector pin specifications

Pin	Input signal	Pin	Input signal
1	TMDS Data2+	11	TMDS Clock Shield
2	TMDS Data2 Shield	12	TMDS Clock-
3	TMDS Data2-	13	CEC
4	TMDS Data1+	14	Reserved(N.C. on device)
5	TMDS Data1 Shield	15	SCL
6	TMDS Data1-	16	SDA
7	TMDS Data0+	17	DDC/CEC Ground
8	TMDS Data0 Shield	18	+5V Power
9	TMDS Data0-	19	Hot Plug Detect
10	TMDS Clock+		



PRODUCT SPECIFICATIONS (continued)

Recommended Signal List

With HDMI input(Monitor Side Only, for A/V Center Check A/V Center IB)

No.	Signal mode			Horizontal frequency (kHz)	Dot clock frequency (MHz)	Remarks
	Signal Name	Resolution	Vertical frequency (Hz)			
1	VGA	640 X 480	59.94	31.47	25.18	CEA-861D
2	480i	720(1440) X 480	59.94	15.73	27.00	CEA-861D
3	480p	720 X 480	59.94	31.47	27.00	CEA-861D
4	1080i/60	1920 X 1080	60.00	33.75	74.25	CEA-861D
5	720p/60	1280 X 720	60.00	45.00	74.25	CEA-861D
6	1080p/60	1920 X 1080	60.00	67.50	148.50	CEA-861D
7	1080p/24	1920 X 1080	24.00	27.00	74.25	CEA-861D

With RGB input

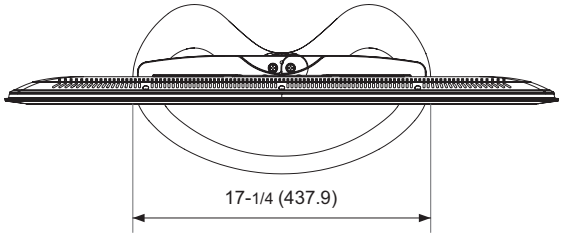
Timing Name	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Frequency (MHz)	Sync Polarity (H/V)	Remarks
640 x 400 @ 70Hz	31.469	70.086	25.175	- / +	VGA
640 x 480 @ 60Hz	31.469	59.940	25.175	- / -	VGA
800 x 600 @ 60Hz	37.879	60.317	40.000	+ / +	VESA
1024 x 768 @ 60Hz	48.363	60.004	65.000	- / -	VESA
1280 x 768 @ 60Hz	47.776	59.870	79.500	- / +	VESA / WXGA Mode : 1280x768
1360 x 768 @ 60Hz	47.712	60.015	85.500	+ / +	VESA / WXGA Mode : 1360x768

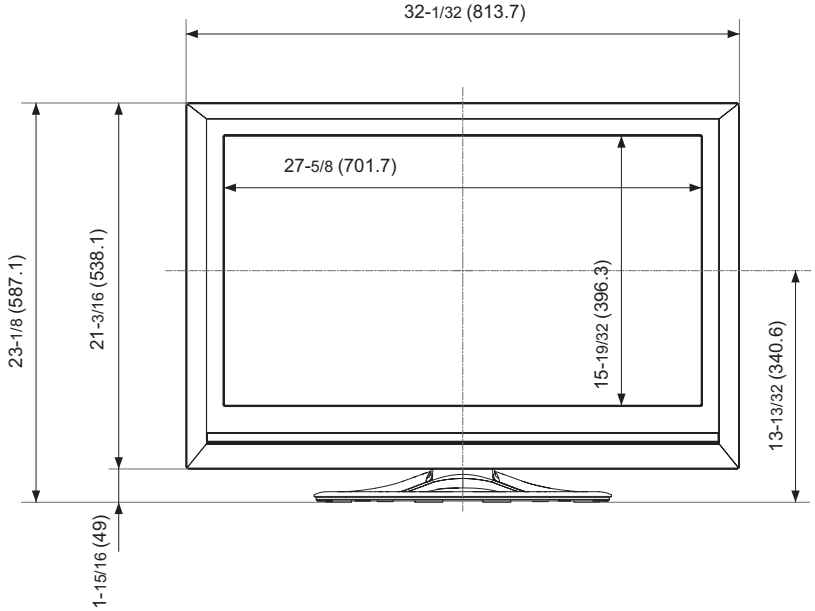
- The type of video board or the connecting cable used may not allow for correct displays adjustment of Horizontal Position, Vertical Position, Horizontal Clock and Clock Phase.
- The unit differentiates the signal modes according to the horizontal and vertical frequencies and the horizontal and vertical sync signal polarities. Note that different signals having all these elements alike may be handled as the same signal.

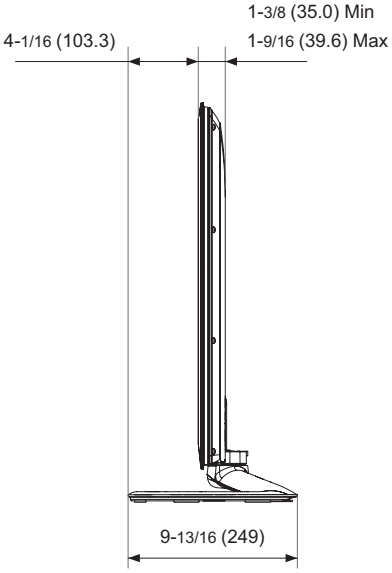
PRODUCT SPECIFICATIONS (continued)

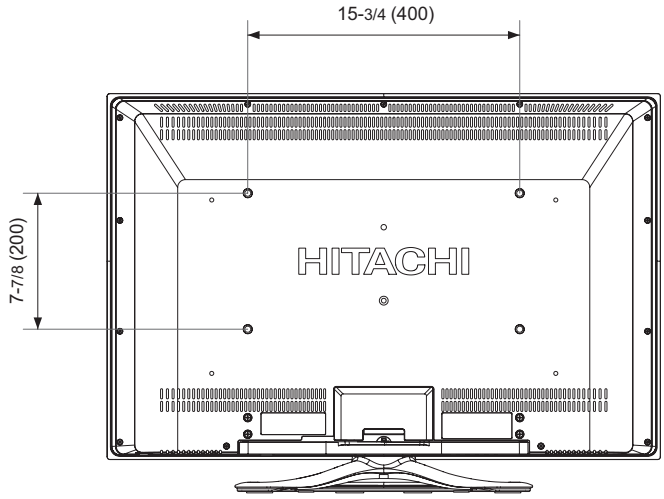
Dimensions

Unit: Inch/(mm)









SERVICE INFORMATION

800.HITACHI
(800.448.2244)

Operational, hook up and warranty questions for your product.

Monday ~ Sunday
8:00 am - 8:30 pm CST

www.hitachi.us/tv

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Should you require service assistance with **OPERATIONAL, HOOK UP, TECHNICAL ASSISTANCE OR WARRANTY SUPPORT, please contact our Support Hotline at 800. HITACHI (800.448.2244).**

Our Support Hotline will provide you with the assistance you need and if necessary the location of the nearest Authorized Service Facility in your area. Please present proof of purchase and/or delivery receipts to the Hitachi Authorized Service Facility and service will be rendered in accordance with the terms of the limited warranty as stated on your warranty card or operating guide.

Hitachi Home Electronics
(America), Inc.
Customer Service Support
PO Box 3900
Peoria, IL 61612
customerservice.ce@hhea.hitachi.com

HITACHI HOME ELECTRONICS (CANADA)

Should you have any questions regarding warranty, service, operation or technical assistance, please contact:

In Canada: 800.HITACHI (800.448.2244)
Monday~ Friday 9:00 am – 7:00 pm EST
Saturday 9:00 am – 5:00 pm EST

Pour de plus amples renseignements sur le service durant la période couverte par la garantie, sur le fonctionnement ou pour de l'assistance technique communiquez avec:

Au Canada: 800.HITACHI (800.448.2244)
Lundi~ Vendredi 9:00 am – 7:00 pm L'EST
Samedi 9:00 am – 5:00 pm L'EST

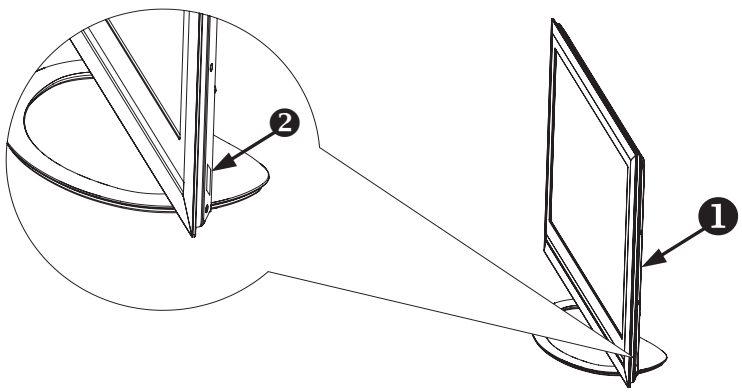
Hitachi Home Electronics (Canada)
Customer Service Support
PO Box 3900
Peoria, IL 61612

Customer Record
The MODEL NAME and SERIAL NUMBER of this product is located on the backcover and also on the RIGHT SIDE of the set. Please follow the next steps to find this information and then record it in the space provided below for use in case you call 800.HITACHI, they will require this information in order to give you the proper support.

❶ Look on the right side of the set

❷ Locate the label where it shows the information related to MODEL NAME and SERIAL #.

❸ 800.HITACHI will require this information in order to give you the proper support regarding your questions.



Model Name_____ Serial Number _____

LIMITED WARRANTY

Congratulations on your purchase of a new Hitachi display product.
Register your product online at www.hitachi.us/tv or mail the included warranty registration card:

LIMITED WARRANTY Hitachi Home Electronics (America), Inc. warrants thisproduct in accordance with the terms and conditions applicable to the Products identified below:	**Conditions of Hitachi Limited Warranty** This Hitachi display product (the "Product") is warranted to be free from defects in materials and workmanship beginning on the date of purchase by the original owner and continuing for the duration of the applicable time periods specified below. If the Product is found to be defective, Hitachi will repair or replace (at Hitachi's option) defective parts at no charge, subject to the conditions of this Limited Warranty. If the original owner rejects, refuses or otherwise does not accept Hitachi's offer to repair or replace such defective parts under this Limited Warranty, this Limited Warranty shall be void and of no further force or effect. This Limited Warranty extends to the original owner only and is not transferable, and such owner must provide a dated sales receipt for the Product to qualify for parts or service under this Limited Warranty. The original owner must notify Hitachi of a defect claim during the applicable Limited Warranty period for this Limited Warranty to be effective. This Limited Warranty is valid only in the U.S.A. and Puerto Rico.
LCD Flat Panel Televisions LCD Flat Panel Monitors Plasma Televisions Plasma Monitors	**PARTS**: The Limited Warranty period for parts is 1 year from the date of original purchase. During the Limited Warranty period for parts, Hitachi will replace defective parts with new or rebuilt parts (at Hitachi's option) at no charge for such parts. Any replacement part will be warranted for the remainder of the original warranty period applicable to the part replaced. **LABOR**: The Limited Warranty period for labor is 1 year from the date of original purchase. During the Limited Warranty period for labor, Hitachi will repair or replace (at Hitachi's option) defective parts without charge for labor. **SERVICE LOCATION**: In-home warranty service, which includes either in-home repair or free pick-up and delivery (at Hitachi's option), applies to all Hitachi Products except: (i) 26-inch and smaller LCD Flat Panel Televisions or LCD Flat Panel Monitors; (ii) Products located outside the U.S.A. or Puerto Rico; (iii) Products located more than seventy-five (75) driving miles from Hitachi's nearest Authorized Service Facility. If the foregoing clauses (i), (ii), (iii) apply, then the Product owner will be responsible for bringing/delivering the Product to a Hitachi Authorized Service Facility and, following warranty service, retrieving the Product from such Authorized Service Facility.

CERTIFIED SERVICE CENTER

Hitachi is a proud supporter of the Certified Service Center program. Businesses who display the CSC certification mark have demonstrated that they operate in accordance with the high standards of professionalism prescribed by the Consortium for Certified Service Centers.

IMPORTANT:
Before using or installing your Product, please complete this form and attach your sales receipt and retain them for your records. This will help facilitate proper warranty coverage.

800-HITACHI (800-448-2244)
Please call 800-HITACHI (800-448-2244) for operational, hook up, warranty questions or the location of your nearest Hitachi Authorized Service Facility or Parts Distributor.

Visit our website and register your product online:
Hitachi's website features a wealth of information on Hitachi products and technologies, as well as downloadable operating guides and other useful information.

To register your new Hitachi display product online, go to:
www.hitachi.us/tv Support and Contact/Warranty Registration

MODEL NO.	SERIAL NO.
DEALER NAME	DATE OF PURCHASE
DEALER ADDRESS	
CITY	STATE

Warranty Limitations
This Hitachi Limited Warranty does not cover:

A. Any Product that has been modified or repaired in a manner not previously authorized by Hitachi in writing.
B. Any Product whose serial number has been removed, altered, replaced, defaced or rendered illegible.
C. Any defect, malfunction, or failure caused by or resulting from improper or unauthorized service, maintenance or repair.
D. Damage resulting from abuse, misuse, mishandling, neglect or damage caused by exposure to hostile operating environments such as areas containing dust and/or smoke.
E. Damage caused by power surges, accidents, natural disasters or any other events or circumstances outside Hitachi's control.
F. Any Product used in any manner inconsistent with the acceptable set-up, usage, safety or installation configurations identified in the Product's Operating Guide.
G. Any Product used for purposes or applications, or subjected to operating conditions, other than those identified as acceptable in the Product's Operating Guide.
H. Product repairs (including any product whose case has been opened), or part replacements provided or installed, by any person other than an Authorized Hitachi Service Facility Representative.
I. Improper uncrating, set-up or installation or any misadjustments caused by user-operated controls.
J. Any labor or costs associated with removing the Product from a custom cabinet or other specialized product installation that impedes direct and immediate removal of the Product from the owner's premises (must be arranged and paid by the owner).
K. Product cabinets, cabinet parts, knobs, batteries or accessories.
L. Product screens that have been cleaned by any method other than as specified in the Product's Operating Guide.
M. Normal usage, degraded brightness caused by backlight aging and/or cell defects or ordinary wear and tear, including, without limitation, scratches or marks on the Product's screen, cabinet or the appearance of bright or dark screen pixels.
N. Any Product returned for service that is damaged due to improper packaging, mishandling or shipping. (IMPORTANT: When shipping any Product to a Hitachi Authorized Service Centers, Product owner must package it securely in the original shipping container or its equivalent to prevent damage. The Product must be returned with the shipping charges prepaid and proof of purchases included in the shipping container. Failure to properly package such product during such shipment will void all warranties.)
O. Any Product purchased or serviced outside the United States of America and Puerto Rico.
P. Any Product that has been used for commercial purposes.

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